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Note: These same sub-sections are repeated for each source!



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**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
030	MACT BOILERS AND PROCESS HEATERS		
034	BOILER 9	349.600 MMBTU/HR	
		N/A	Refinery Gas
		N/A	Natural Gas
035	BOILER 10	349.600 MMBTU/HR	
		N/A	Natural Gas
		N/A	Refinery Gas
090	EXISTING EMERGENCY COMPRESSION IGNITION ENGINES <500HP		
091	NEW EMERGENCY COMPRESSION IGNITION ENGINES (IC <30LITER)		
092	YANMAR CI RICE (LP BASEMENT GODWIN PUMP)		
101	FCC UNIT	2,167.000 BBL/HR	GAS OIL
		N/A	COKE-REGENERATO
102	CLAUS SULFUR RECOV. PLT.	3.700 Tons/HR	LIQUID SULFUR
		4.000 MCF/HR	FUEL GAS
103	MAIN FLARE	1.000 BBL/HR	PETRO. LIQUIDS
		N/A	PROCESS GAS
		4.400 MMCF/HR	Natural Gas
104	MARINE VESSEL BALLASTING	8.500 Th BBL/HR	CRUDE OIL
105	MARINE VESSEL LOADING	108.600 Th Gal/HR	GASOLINE
106	PROCESS DRAINS & H2O SEP.	7,710.000 BBL/HR	WASTEWATER
111	COOLING TOWERS	60.000 Th BBL/HR	COOLING WATER
112	PURGING & SAMPLING, ETC	8.500 Th BBL/HR	CRUDE
113	LPG RECOVERY UNIT	8.500 Th BBL/HR	CRUDE OIL
114	RACT FUGITIVE EQUIPMENT		
115	NSPS FUGITIVE EQUIPMENT		
118	RAILCAR LOADING LPG & BUTANE	N/A	LPG & BUTANE
119	PLATFORMER REGENERATOR	N/A	PLATINUM CATALYST
120	ACID GAS FLARE	N/A	Natural Gas
		N/A	Refinery Gas
121	SOUR GAS FLARE	N/A	Natural Gas
		N/A	Refinery Gas
122	BACK-UP FLARE	N/A	Natural Gas
123	#66 EXT.FLOAT 43M BBLS	N/A	TVP< 11.1 PSIA
124	#67 EXT.FLOAT 43M BBLS	N/A	TVP< 11.1 PSIA
125	#68 EXT.FLOAT 43M BBLS	N/A	TVP< 11.1 PSIA
126	#95 EXT.FLOAT 59M BBLS	N/A	TVP< 11.1 PSIA
127	#96 EXT.FLOAT 59M BBLS	N/A	TVP< 11.1 PSIA
128	MACT FUGITIVES		
129	DISULFIDE OXIDIZER SEPARATOR VENT	1.000 Gal/HR	PETROLEUM PRODUCTS
130	PEABODY HEATER	74.000 MMBTU/HR	

**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
		74.000 MCF/HR	NATURAL GAS
131	AWWTP EMERGENCY GENERATOR	100.000 Gal/HR	Diesel Fuel
133	BENZENE WASTE OPERATIONS		
134	#132 INT.FLOAT 15M BBLS	N/A	TVP< 11.1 PSIA
136	#151 EXT.FLOAT 53M BBLS	N/A	TVP< 11.1 PSIA
137	#152 INT. FLOAT 61M BBL	N/A	TVP< 11.1 PSIA
138	#153 EXT.FLOAT 53M BBLS	N/A	TVP < 1.5 PSIA
139	#154A INT. FLOAT 105M BBLS	N/A	TVP < 13.0 PSIA
140	#155 INT. FLOAT 63M BBLS.	N/A	TVP< 11.1 PSIA
141	#156 EXT.FLOAT 53M BBLS	N/A	TVP< 11.1 PSIA
142	#157 EXT.FLOAT 77M BBLS	N/A	TVP< 1.5 PSIA
143	#159 EXT.FLOAT 79M BBLS	N/A	TVP< 11.1 PSIA
144	#161 EXT.FLOAT 86M BBLS	N/A	TVP< 11.1 PSIA
145	#162 EXT.FLOAT 82M BBLS	N/A	TVP< 11.1 PSIA
146	#163 EXT.FLOAT 82M BBLS	N/A	TVP< 11.1 PSIA
147	#164 EXT.FLOAT 83M BBLS	N/A	TVP< 11.1 PSIA
148	#165 EXT.FLOAT 82M BBLS	N/A	TVP< 11.1 PSIA
149	#166 EXT.FLOAT 83M BBLS	N/A	TVP< 11.1 PSIA
150	#168 INT. FLOAT 79M BBLS.	N/A	TVP< 11.1 PSIA
151	#169 EXT.FLOAT 78M BBLS	N/A	TVP< 11.1 PSIA
152	#170 EXT.FLOAT 71M BBLS	N/A	TVP< 11.1 PSIA
153	#171 INT. FLOAT 83M BBLS	N/A	TVP< 11.1 PSIA
154	#172 EXT.FLOAT 81M BBLS	N/A	TVP< 1.5 PSIA
155	#174 EXT.FLOAT 154M BBLS	N/A	TVP< 11.1 PSIA
156	#175 EXT.FLOAT 151M BBLS	N/A	TVP< 11.1 PSIA
157	#178 EXT.FLOAT 80M BBLS	N/A	TVP< 11.1 PSIA
160	#181 EXT.FLOAT 129M BBLS	N/A	TVP< 11.1 PSIA
161	#182 EXT.FLOAT 129M BBLS	N/A	TVP< 11.1 PSIA
162	#184 EXT.FLOAT 26M BBLS	N/A	TVP< 11.1 PSIA
163	#185 EXT.FLOAT 150M BBLS	N/A	TVP< 11.1 PSIA
164	#186 EXT.FLOAT 151M BBLS	N/A	TVP< 11.1 PSIA
165	#93 EXT.FLOAT 244M BBL	N/A	TVP< 11.1 PSIA
166	#94 EXT.FLOAT 243M BBL	N/A	TVP < 11.1 PSIA
180	#54 CONE ROOF TK 54M BBLS		
190	#134 INT. FLOAT 15M BBLS	N/A	TVP< 11.1 PSIA
194	#160 INT. FLOAT 85 M BBLS	85.000 Th BBL/HR	JET A KEROSENE
215	NSPS NEW FUGITIVE EQUIPMENT	8.500 Th BBL/HR	CRUDE OIL
300	MISCELLANEOUS MACT GROUP 2 TANKS		
501	SPHEROID 501 (1.26 MM GAL)	N/A	LIGHT ISOCRACATE
502	SPHEROID 502 (1.26 MM GAL)	N/A	LIGHT ISOCRACATE

**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
513	SPHEROID 513 (1.26 MM GAL)	N/A	LIGHT ISOCRACATE
700	HEAT EXCHANGE SYSTEMS		
730	REFORMER UNIT FUGITIVES	250.000 Tons/HR	REFORMATE
733	FCCU FEED HEATER	63.000 MMBTU/HR	
		87.000 MCF/HR	fuel gas
735	KEROSENE/HCN HTU HEATER	23.000 MMBTU/HR	
		28.000 MCF/HR	Refinery Gas
736	DIESEL HTU HEATER	39.000 MMBTU/HR	
		39.000 MCF/HR	Refinery Gas
737	NAPHTHA HDS HEATER	65.000 MMBTU/HR	
		93.000 MCF/HR	Refinery Gas
738	PLATFORMER FEED HEATER	913.000 MMBTU/HR	
		1,310.000 MCF/HR	Refinery Gas
739	ISOCRACKER 1ST STAGE HEATER.	50.000 MMBTU/HR	
		80.000 MCF/HR	Refinery Gas
740	ISOCRACKER SPLITTER RBLR	76.000 MMBTU/HR	
		109.000 MCF/HR	Refinery Gas
741	D2/VGO HYDROTREATER FEED HEATER	56.000 MMBTU/HR	
		80.000 MCF/HR	Refinery Gas
742	VCD 541 VAC HEATER	56.000 MMBTU/HR	
		80.000 MCF/HR	Refinery Gas
		100.000 MCF/HR	Natural Gas
743	VCD 542 VAC HEATER	72.000 MMBTU/HR	
		103.000 MCF/HR	Refinery Gas
		100.000 MCF/HR	Natural Gas
744	ACD 543 CRUDE HEATER	514.000 MCF/HR	Refinery Gas
745	ACD 544 CRUDE HEATER	514.000 MCF/HR	Refinery Gas
746	VCD 544 VAC HEATER	229.000 MCF/HR	Refinery Gas
T001	MACT GROUP 1, INT FLOAT ROOF TANKS	1.000 BBL/HR	
T002	MACT GROUP 1, EXT FLOATING TANKS	1.000 BBL/HR	
T003	MACT GROUP 2 TANKS	1.000 BBL/HR	
T004	RACT-ONLY EXT FLOAT ROOF TANKS	1.000 BBL/HR	
T005	EXT FLOAT NSPS KB TANKS	1.000 BBL/HR	
T006	MACT GR 1, TANKS ROUTED TO CLOSED VENT SYS		
T007	INTERNAL FLOAT NSPS KB TANKS	1.000 BBL/HR	
C01	CO BOILER		
C02	RESEARCH COTTRELL ESP		
C03	SCOT TAIL GAS TREATER		
C04	WASTEWATER WATER OIL SEPARATOR. (1)		
C06	HYDROGEN CHLORIDE ABSORPTION SYSTEM		
C07	LNB & FGR (BOILER 9)		

**SECTION A. Site Inventory List**

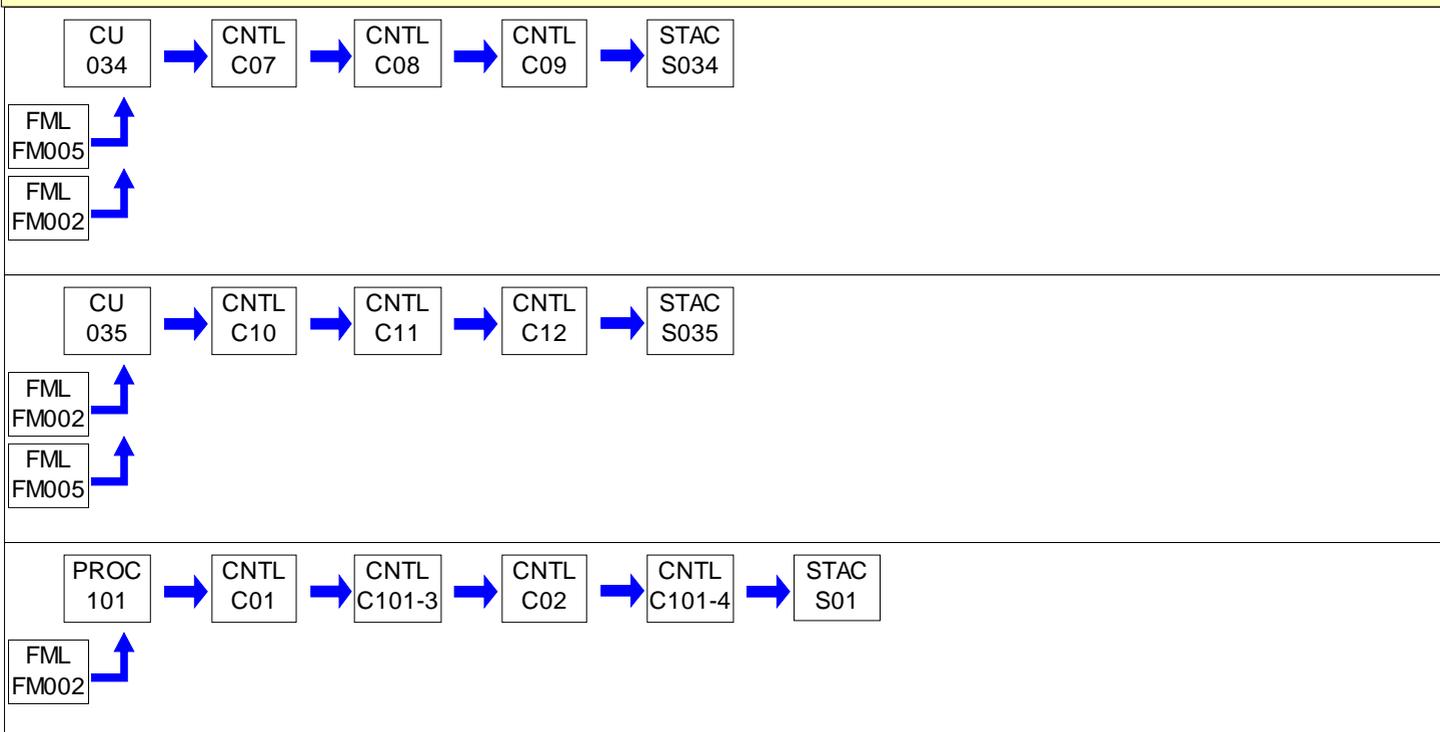
Source ID	Source Name	Capacity/Throughput	Fuel/Material
C08	SCR (BOILER 9)		
C09	CO CATALYST (BOILER 9)		
C10	LNB & FGR (BOILER 10)		
C101-3	FCCU SELECTIVE NON-CATALYTIC REDUCTION SYSTEM		
C101-4	FCCU WET GAS SCRUBBER		
C102	SRU INCINERATOR		
C103	MAIN FLARE		
C106	CARBON CANISTERS		
C11	SCR (BOILER 10)		
C12	CO CATALYST (BOILER 10)		
C121	SOUR GAS FLARE		
C122	BACK-UP FLARE		
C733	FCCU FEED HEATER ULTRA-LOW NOX BURNERS		
C746	544 VACUUM HEATER ULTRA-LOW NOX BURNERS		
FM002	NORTH SIDE FUEL GAS SYSTEM (RFG)		
FM003	NAPHTHA FUEL GAS SYSTEM		
FM004	ISO LPS FUEL GAS SYSTEM		
FM005	NATURAL GAS		
FM006	AMINE FUEL GAS SYSTEM		
FM007	DIESEL FUEL		
S01	FCC STACK		
S02	CLAUS SULFUR STACK		
S028	ACID GAS FLARE STACK		
S03	MAIN FLARE STACK		
S034	BOILER 9 STACK		
S035	BOILER 10 STACK		
S106	WWTP CARBON CANISTER STACK		
S131	AWWTP GENERATOR STACK		
S14	KEROSENE HTU STACK		
S15	DIESEL HTU STACK		
S16	NAPHTHA HDS STACK		
S17	PLATFORMER HEATER STACK		
S18	PLATFORMER HEATER STACK		
S19	ISOCRACKER 1ST STAGE STK		
S20	ISOCRACKER SPLITTER STACK		
S21	D2/VGO HYDROTREAT FEED HEATER STACK		
S22	VCD 541 VAC STACK		
S23	VCD 542 VAC STACK		
S24	ACD 543 CRUDE HEATER STK		
S25	ACD 544 CRUDE HTR STK		

**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
S26	VCD 544 HEATER STACK		
S27	PLATFORMER REGEN STACK		
S29	SOUR GAS FLARE STACK		
S30	BACKUP FLARE STACK		
S34	ACD 543 CRUDE HTR STACK		
S35	ACD 544 CRUDE HTR STACK		
S733	FCCU FEED HEATER STACK		
ST006	T006 TANKS ROUTED TO CLOSED VENT SYS		
Z01	BALLASTING FUGITIVES		
Z02	VESSEL LOADING FUGITIVES		
Z03	DRAINS AND WASTEWATER FUGITIVES		
Z04	STATE/NSPS FUGITIVES		
Z05	VALVE & FLANGE FUG.		
Z07	COOLING TOWER FUG.		
Z08	PURGE & SAMPLE FUG.		
Z13	TANKS 66 FUGITIVES		
Z139	TANK 139 FUGITIVES		
Z14	TANK 67 FUGITIVES		
Z15	TANK 68 FUGITIVES		
Z16	TANK 95 FUGITIVES		
Z17	TANK 96 FUGITIVES		
Z18	RAILCAR LOADING FUGITIVES		
Z24	TANK 132 FUGITIVES		
Z26	TANK 151 FUGITIVES		
Z27	TANK 152 FUGITIVES		
Z28	TANK 153 FUGITIVES		
Z30	TANK 155 FUGITIVES		
Z31	TANK 156 FUGITIVES		
Z32	TANK 157 FUGITIVES		
Z33	TANK 159 FUGITIVES		
Z34	TANK 161 FUGITIVES		
Z35	TANK 162 FUGITIVES		
Z36	TANK 163 FUGITIVES		
Z37	TANK 164 FUGITIVES		
Z38	TANK 165 FUGITIVES		
Z39	TANK 166 FUGITIVES		
Z40	TANK 168 FUGITIVES		
Z41	TANK 169 FUGITIVES		
Z42	TANK 170 FUGITIVES		
Z43	TANK 171 FUGITIVES		
Z44	TANK 172 FUGITIVES		

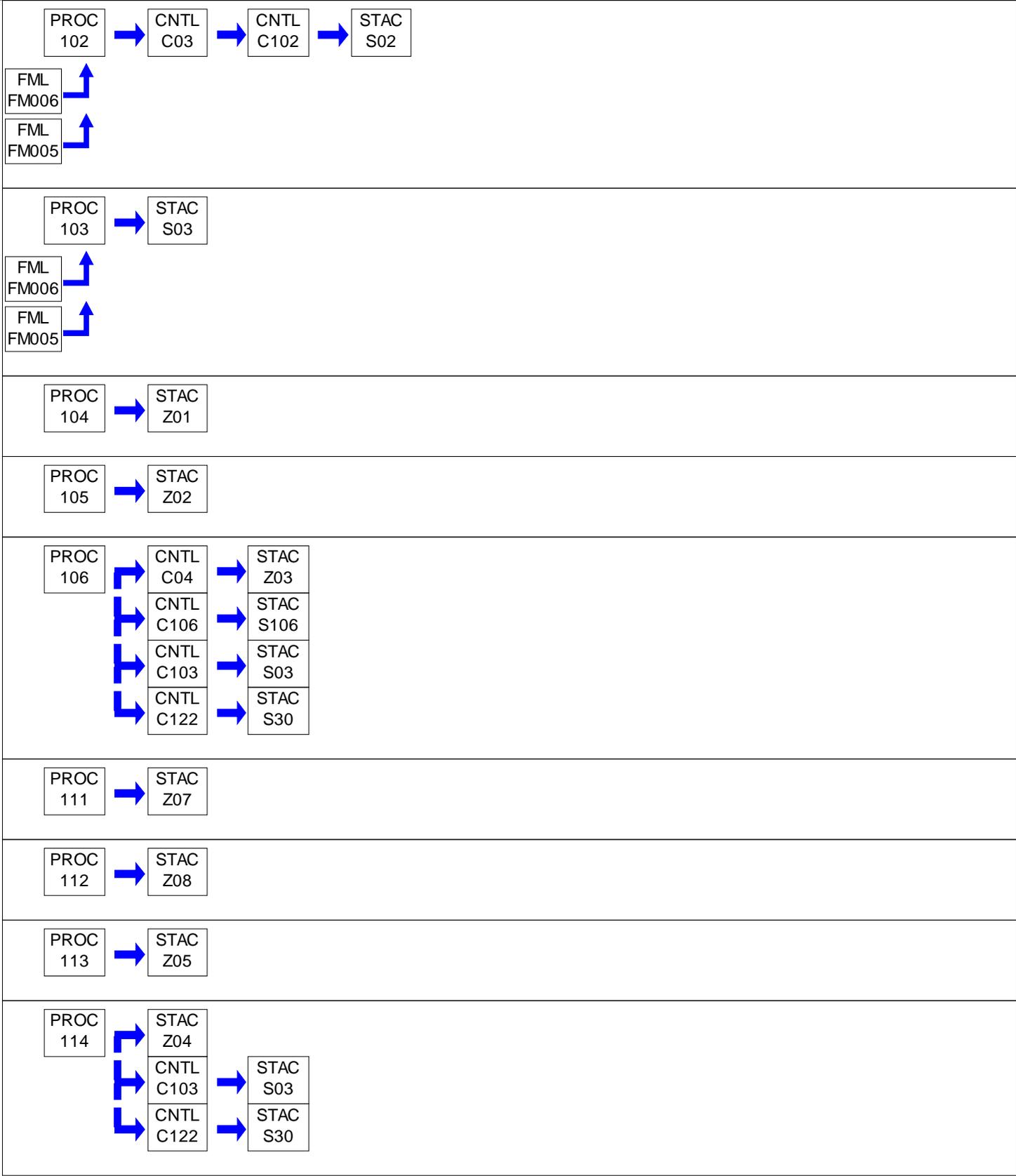
**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
Z45	TANK 174 FUGITIVES		
Z46	TANK 175 FUGITIVES		
Z47	TANK 178 FUGITIVES		
Z50	TANK 181 FUGITIVES		
Z51	TANK 182 FUGITIVES		
Z52	TANK 184 FUGITIVES		
Z53	TANK 185 FUGITIVES		
Z54	TANK 186 FUGITIVES		
Z65	93 TANK FUGITIVES		
Z66	#94 TANK FUGITIVES		
Z80	#134 CONE ROOF FUGITIVES		
Z84	#160 CONE ROOF FUGITIVES		
Z87	REFORMATE FUGITIVES		
ZT001	T001 FUGITIVE EMISSIONS		
ZT002	T002 FUGITIVE EMISSIONS		
ZT003	T003 FUGITIVE EMISSIONS		
ZT004	T004 FUGITIVE EMISSIONS		
ZT005	T005 FUGITIVE EMISSIONS		
ZT007	T007 FUGITIVE EMISSIONS		

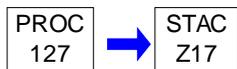
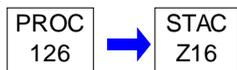
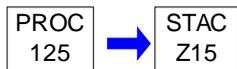
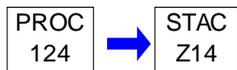
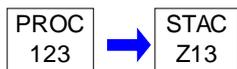
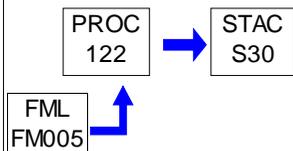
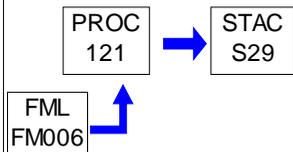
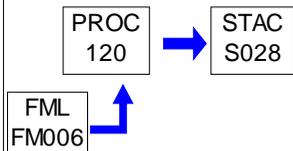
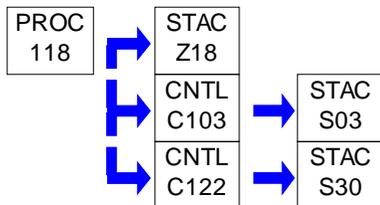
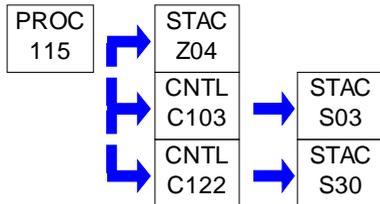
PERMIT MAPS



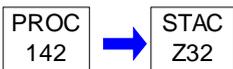
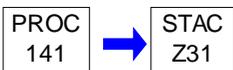
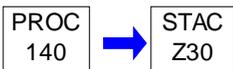
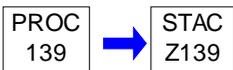
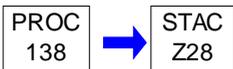
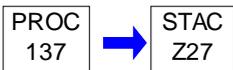
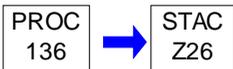
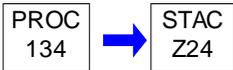
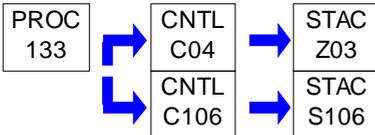
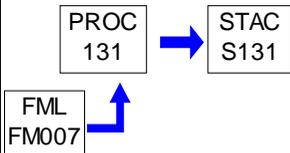
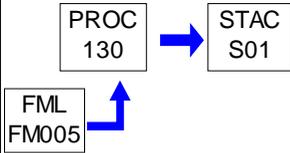
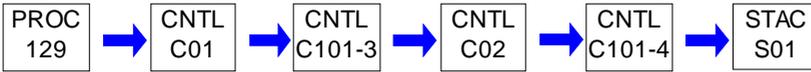
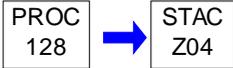
PERMIT MAPS



PERMIT MAPS



PERMIT MAPS



PERMIT MAPS

PROC 143 → STAC Z33

PROC 144 → STAC Z34

PROC 145 → STAC Z35

PROC 146 → STAC Z36

PROC 147 → STAC Z37

PROC 148 → STAC Z38

PROC 149 → STAC Z39

PROC 150 → STAC Z40

PROC 151 → STAC Z41

PROC 152 → STAC Z42

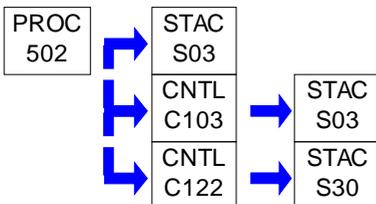
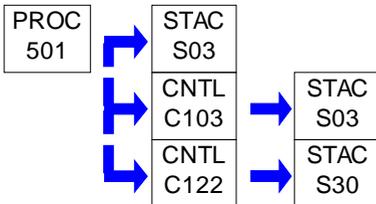
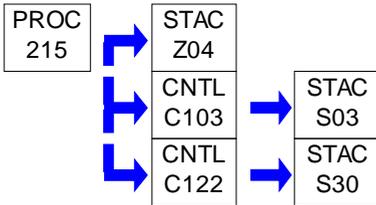
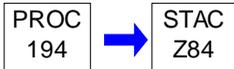
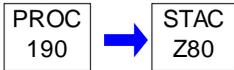
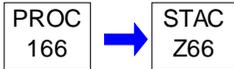
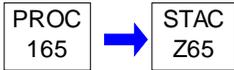
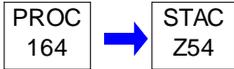
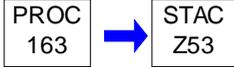
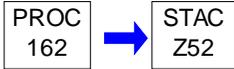
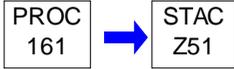
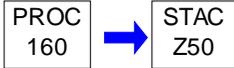
PROC 153 → STAC Z43

PROC 154 → STAC Z44

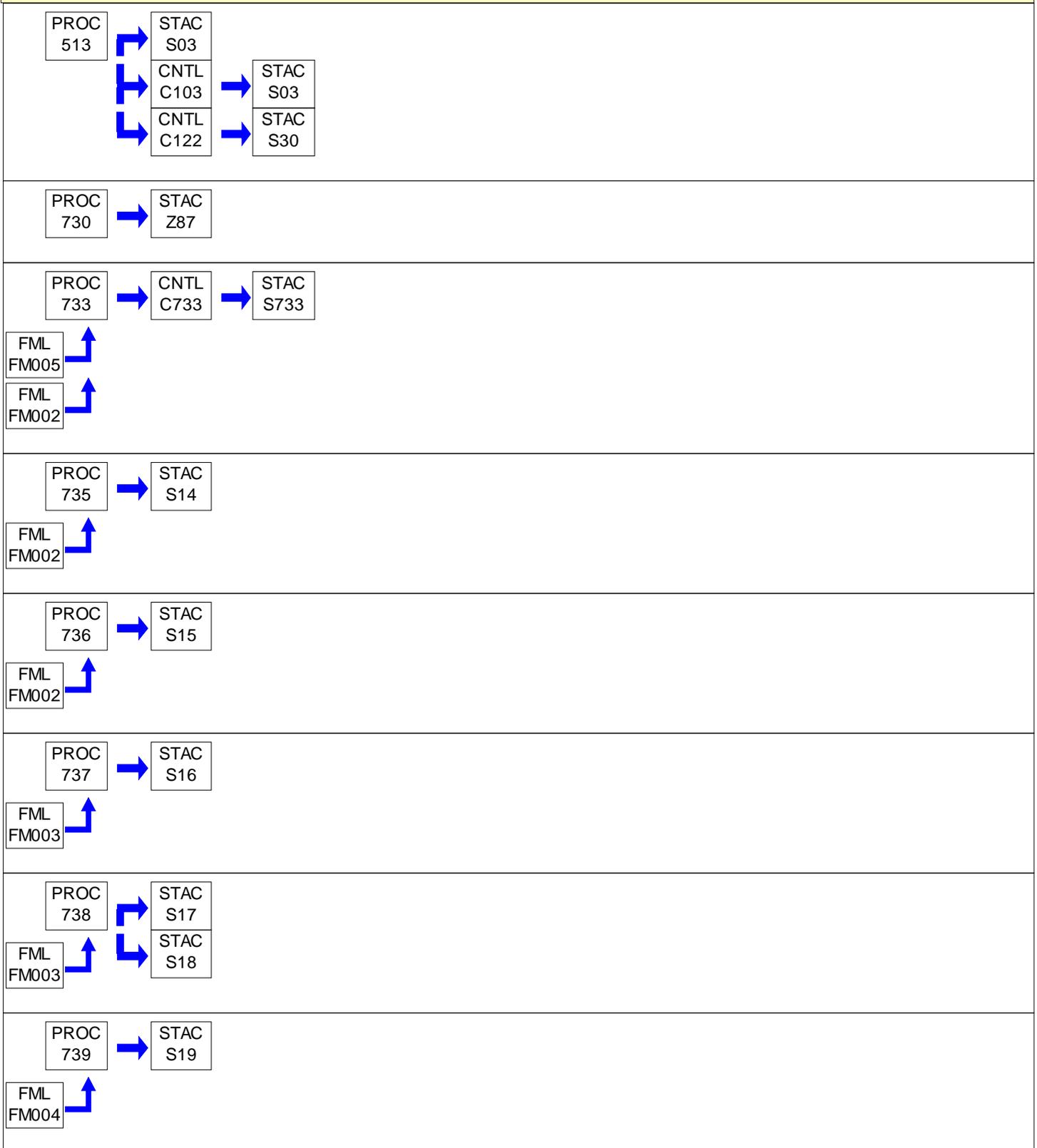
PROC 155 → STAC Z45

PROC 156 → STAC Z46

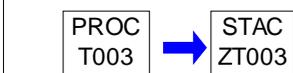
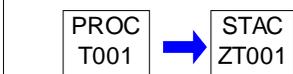
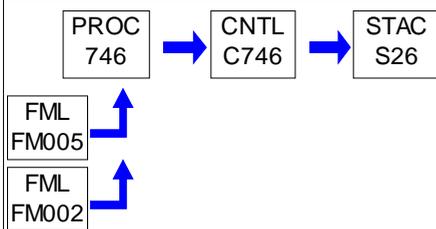
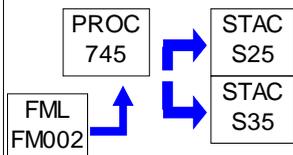
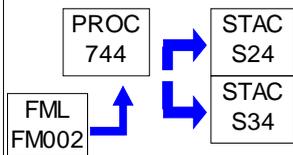
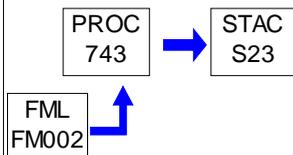
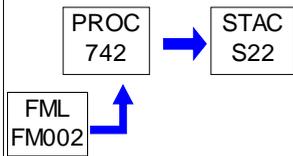
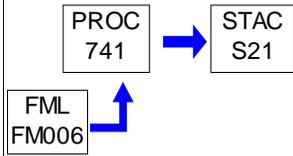
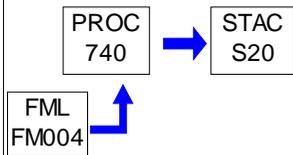
PROC 157 → STAC Z47

PERMIT MAPS

PERMIT MAPS



PERMIT MAPS



PERMIT MAPS

PROC
T004 → STAC
ZT004

PROC
T005 → STAC
ZT005

PROC
T006 → STAC
ST006
CNTL
C103 → STAC
S03
CNTL
C122 → STAC
S30

PROC
T007 → STAC
ZT007

**SECTION B. General Title V Requirements****#001 [25 Pa. Code § 121.1]****Definitions**

Words and terms that are not otherwise defined in this permit shall have the meanings set forth in Section 3 of the Air Pollution Control Act (35 P.S. § 4003) and 25 Pa. Code § 121.1.

#002 [25 Pa. Code § 127.512(c)(4)]**Property Rights**

This permit does not convey property rights of any sort, or any exclusive privileges.

#003 [25 Pa. Code § 127.446(a) and (c)]**Permit Expiration**

This operating permit is issued for a fixed term of five (5) years and shall expire on the date specified on Page 1 of this permit. The terms and conditions of the expired permit shall automatically continue pending issuance of a new Title V permit, provided the permittee has submitted a timely and complete application and paid applicable fees required under 25 Pa. Code Chapter 127, Subchapter I and the Department is unable, through no fault of the permittee, to issue or deny a new permit before the expiration of the previous permit. An application is complete if it contains sufficient information to begin processing the application, has the applicable sections completed and has been signed by a responsible official.

#004 [25 Pa. Code §§ 127.412, 127.413, 127.414, 127.446(e) & 127.503]**Permit Renewal**

(a) An application for the renewal of the Title V permit shall be submitted to the Department at least six (6) months, and not more than 18 months, before the expiration date of this permit. The renewal application is timely if a complete application is submitted to the Department's Regional Air Manager within the timeframe specified in this permit condition.

(b) The application for permit renewal shall include the current permit number, the appropriate permit renewal fee, a description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term.

(c) The renewal application shall also include submission of proof that the local municipality and county, in which the facility is located, have been notified in accordance with 25 Pa. Code § 127.413. The application for renewal of the Title V permit shall also include submission of compliance review forms which have been used by the permittee to update information submitted in accordance with either 25 Pa. Code § 127.412(b) or § 127.412(j).

(d) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information during the permit renewal process. The permittee shall also promptly provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

#005 [25 Pa. Code §§ 127.450(a)(4) & 127.464(a)]**Transfer of Ownership or Operational Control**

(a) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership or operational control of the source shall be treated as an administrative amendment if:

(1) The Department determines that no other change in the permit is necessary;

(2) A written agreement has been submitted to the Department identifying the specific date of the transfer of permit responsibility, coverage and liability between the current and the new permittee; and,

(3) A compliance review form has been submitted to the Department and the permit transfer has been approved by the Department.

**SECTION B. General Title V Requirements**

(b) In accordance with 25 Pa. Code § 127.464(a), this permit may not be transferred to another person except in cases of transfer-of-ownership which are documented and approved to the satisfaction of the Department.

#006 [25 Pa. Code § 127.513, 35 P.S. § 4008 and § 114 of the CAA]**Inspection and Entry**

(a) Upon presentation of credentials and other documents as may be required by law for inspection and entry purposes, the permittee shall allow the Department of Environmental Protection or authorized representatives of the Department to perform the following:

- (1) Enter at reasonable times upon the permittee's premises where a Title V source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit;
- (2) Have access to and copy or remove, at reasonable times, records that are kept under the conditions of this permit;
- (3) Inspect at reasonable times, facilities, equipment including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit;
- (4) Sample or monitor, at reasonable times, substances or parameters, for the purpose of assuring compliance with the permit or applicable requirements as authorized by the Clean Air Act, the Air Pollution Control Act, or the regulations promulgated under the Acts.

(b) Pursuant to 35 P.S. § 4008, no person shall hinder, obstruct, prevent or interfere with the Department or its personnel in the performance of any duty authorized under the Air Pollution Control Act.

(c) Nothing in this permit condition shall limit the ability of the EPA to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

#007 [25 Pa. Code §§ 127.25, 127.444, & 127.512(c)(1)]**Compliance Requirements**

(a) The permittee shall comply with the conditions of this permit. Noncompliance with this permit constitutes a violation of the Clean Air Act and the Air Pollution Control Act and is grounds for one (1) or more of the following:

- (1) Enforcement action
- (2) Permit termination, revocation and reissuance or modification
- (3) Denial of a permit renewal application

(b) A person may not cause or permit the operation of a source, which is subject to 25 Pa. Code Article III, unless the source(s) and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued to the source are operated and maintained in accordance with specifications in the applications and the conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to 25 Pa. Code Chapter 127 in a manner inconsistent with good operating practices.

(c) For purposes of Sub-condition (b) of this permit condition, the specifications in applications for plan approvals and operating permits are the physical configurations and engineering design details which the Department determines are essential for the permittee's compliance with the applicable requirements in this Title V permit.

#008 [25 Pa. Code § 127.512(c)(2)]**Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**SECTION B. General Title V Requirements****#009 [25 Pa. Code §§ 127.411(d) & 127.512(c)(5)]****Duty to Provide Information**

(a) The permittee shall furnish to the Department, within a reasonable time, information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit.

(b) Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such records directly to the Administrator of EPA along with a claim of confidentiality.

#010 [25 Pa. Code §§ 127.463, 127.512(c)(3) & 127.542]**Reopening and Revising the Title V Permit for Cause**

(a) This Title V permit may be modified, revoked, reopened and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay a permit condition.

(b) This permit may be reopened, revised and reissued prior to expiration of the permit under one or more of the following circumstances:

(1) Additional applicable requirements under the Clean Air Act or the Air Pollution Control Act become applicable to a Title V facility with a remaining permit term of three (3) or more years prior to the expiration date of this permit. The Department will revise the permit as expeditiously as practicable but not later than 18 months after promulgation of the applicable standards or regulations. No such revision is required if the effective date of the requirement is later than the expiration date of this permit, unless the original permit or its terms and conditions has been extended.

(2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator of EPA, excess emissions offset plans for an affected source shall be incorporated into the permit.

(3) The Department or the EPA determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

(4) The Department or the Administrator of EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(c) Proceedings to revise this permit shall follow the same procedures which apply to initial permit issuance and shall affect only those parts of this permit for which cause to revise exists. The revision shall be made as expeditiously as practicable.

(d) Regardless of whether a revision is made in accordance with (b)(1) above, the permittee shall meet the applicable standards or regulations promulgated under the Clean Air Act within the time frame required by standards or regulations.

#011 [25 Pa. Code § 127.543]**Reopening a Title V Permit for Cause by EPA**

As required by the Clean Air Act and regulations adopted thereunder, this permit may be modified, reopened and reissued, revoked or terminated for cause by EPA in accordance with procedures specified in 25 Pa. Code § 127.543.

#012 [25 Pa. Code § 127.541]**Significant Operating Permit Modifications**

When permit modifications during the term of this permit do not qualify as minor permit modifications or administrative amendments, the permittee shall submit an application for significant Title V permit modifications in accordance with 25 Pa. Code § 127.541.

**SECTION B. General Title V Requirements****#013 [25 Pa. Code §§ 121.1 & 127.462]****Minor Operating Permit Modifications**

The permittee may make minor operating permit modifications (as defined in 25 Pa. Code §121.1), on an expedited basis, in accordance with 25 Pa. Code §127.462 (relating to minor operating permit modifications).

#014 [25 Pa. Code § 127.450]**Administrative Operating Permit Amendments**

(a) The permittee may request administrative operating permit amendments, as defined in 25 Pa. Code §127.450(a).

(b) Upon final action by the Department granting a request for an administrative operating permit amendment covered under §127.450(a)(5), the permit shield provisions in 25 Pa. Code § 127.516 (relating to permit shield) shall apply to administrative permit amendments incorporated in this Title V Permit in accordance with §127.450(c), unless precluded by the Clean Air Act or the regulations thereunder.

#015 [25 Pa. Code § 127.512(b)]**Severability Clause**

The provisions of this permit are severable, and if any provision of this permit is determined by the Environmental Hearing Board or a court of competent jurisdiction, or US EPA to be invalid or unenforceable, such a determination will not affect the remaining provisions of this permit.

#016 [25 Pa. Code §§ 127.704, 127.705 & 127.707]**Fee Payment**

(a) The permittee shall pay fees to the Department in accordance with the applicable fee schedules in 25 Pa. Code Chapter 127, Subchapter I (relating to plan approval and operating permit fees).

(b) Emission Fees. The permittee shall, on or before September 1st of each year, pay applicable annual Title V emission fees for emissions occurring in the previous calendar year as specified in 25 Pa. Code § 127.705. The permittee is not required to pay an emission fee for emissions of more than 4,000 tons of each regulated pollutant emitted from the facility.

(c) As used in this permit condition, the term "regulated pollutant" is defined as a VOC, each pollutant regulated under Sections 111 and 112 of the Clean Air Act and each pollutant for which a National Ambient Air Quality Standard has been promulgated, except that carbon monoxide is excluded.

(d) Late Payment. Late payment of emission fees will subject the permittee to the penalties prescribed in 25 Pa. Code § 127.707 and may result in the suspension or termination of the Title V permit. The permittee shall pay a penalty of fifty percent (50%) of the fee amount, plus interest on the fee amount computed in accordance with 26 U.S.C.A. § 6621(a)(2) from the date the emission fee should have been paid in accordance with the time frame specified in 25 Pa. Code § 127.705(c).

(e) The permittee shall pay an annual operating permit administration fee according to the fee schedule established in 25 Pa. Code § 127.704(c) if the facility, identified in Subparagraph (iv) of the definition of the term "Title V facility" in 25 Pa. Code § 121.1, is subject to Title V after the EPA Administrator completes a rulemaking requiring regulation of those sources under Title V of the Clean Air Act.

(f) This permit condition does not apply to a Title V facility which qualifies for exemption from emission fees under 35 P.S. § 4006.3(f).

#017 [25 Pa. Code §§ 127.14(b) & 127.449]**Authorization for De Minimis Emission Increases**

(a) This permit authorizes de minimis emission increases from a new or existing source in accordance with 25 Pa. Code §§ 127.14 and 127.449 without the need for a plan approval or prior issuance of a permit modification. The permittee shall provide the Department with seven (7) days prior written notice before commencing any de minimis emissions increase that would result from either: (1) a physical change of minor significance under § 127.14(c)(1); or

**SECTION B. General Title V Requirements**

(2) the construction, installation, modification or reactivation of an air contamination source. The written notice shall:

- (1) Identify and describe the pollutants that will be emitted as a result of the de minimis emissions increase.
- (2) Provide emission rates expressed in tons per year and in terms necessary to establish compliance consistent with any applicable requirement.

The Department may disapprove or condition de minimis emission increases at any time.

(b) Except as provided below in (c) and (d) of this permit condition, the permittee is authorized during the term of this permit to make de minimis emission increases (expressed in tons per year) up to the following amounts without the need for a plan approval or prior issuance of a permit modification:

- (1) Four tons of carbon monoxide from a single source during the term of the permit and 20 tons of carbon monoxide at the facility during the term of the permit.
- (2) One ton of NO_x from a single source during the term of the permit and 5 tons of NO_x at the facility during the term of the permit.
- (3) One and six-tenths tons of the oxides of sulfur from a single source during the term of the permit and 8.0 tons of oxides of sulfur at the facility during the term of the permit.
- (4) Six-tenths of a ton of PM₁₀ from a single source during the term of the permit and 3.0 tons of PM₁₀ at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.
- (5) One ton of VOCs from a single source during the term of the permit and 5.0 tons of VOCs at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.

(c) In accordance with § 127.14, the permittee may install the following minor sources without the need for a plan approval:

- (1) Air conditioning or ventilation systems not designed to remove pollutants generated or released from other sources.
- (2) Combustion units rated at 2,500,000 or less Btu per hour of heat input.
- (3) Combustion units with a rated capacity of less than 10,000,000 Btu per hour heat input fueled by natural gas supplied by a public utility, liquefied petroleum gas or by commercial fuel oils which are No. 2 or lighter, viscosity less than or equal to 5.82 c St, and which meet the sulfur content requirements of 25 Pa. Code § 123.22 (relating to combustion units). For purposes of this permit, commercial fuel oil shall be virgin oil which has no reprocessed, recycled or waste material added.
- (4) Space heaters which heat by direct heat transfer.
- (5) Laboratory equipment used exclusively for chemical or physical analysis.
- (6) Other sources and classes of sources determined to be of minor significance by the Department.

(d) This permit does not authorize de minimis emission increases if the emissions increase would cause one or more of the following:

- (1) Increase the emissions of a pollutant regulated under Section 112 of the Clean Air Act except as authorized in Subparagraphs (b)(4) and (5) of this permit condition.
- (2) Subject the facility to the prevention of significant deterioration requirements in 25 Pa. Code Chapter 127, Subchapter D and/or the new source review requirements in Subchapter E.

**SECTION B. General Title V Requirements**

(3) Violate any applicable requirement of the Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under either of the acts.

(4) Changes which are modifications under any provision of Title I of the Clean Air Act and emission increases which would exceed the allowable emissions level (expressed as a rate of emissions or in terms of total emissions) under the Title V permit.

(e) Unless precluded by the Clean Air Act or the regulations thereunder, the permit shield described in 25 Pa. Code § 127.516 (relating to permit shield) shall extend to the changes made under 25 Pa. Code § 127.449 (relating to de minimis emission increases).

(f) Emissions authorized under this permit condition shall be included in the monitoring, recordkeeping and reporting requirements of this permit.

(g) Except for de minimis emission increases allowed under this permit, 25 Pa. Code § 127.449, or sources and physical changes meeting the requirements of 25 Pa. Code § 127.14, the permittee is prohibited from making physical changes or engaging in activities that are not specifically authorized under this permit without first applying for a plan approval. In accordance with § 127.14(b), a plan approval is not required for the construction, modification, reactivation, or installation of the sources creating the de minimis emissions increase.

(h) The permittee may not meet de minimis emission threshold levels by offsetting emission increases or decreases at the same source.

#018 [25 Pa. Code §§ 127.11a & 127.215]**Reactivation of Sources**

(a) The permittee may reactivate a source at the facility that has been out of operation or production for at least one year, but less than or equal to five (5) years, if the source is reactivated in accordance with the requirements of 25 Pa. Code §§ 127.11a and 127.215. The reactivated source will not be considered a new source.

(b) A source which has been out of operation or production for more than five (5) years but less than 10 years may be reactivated and will not be considered a new source if the permittee satisfies the conditions specified in 25 Pa. Code § 127.11a(b).

#019 [25 Pa. Code §§ 121.9 & 127.216]**Circumvention**

(a) The owner of this Title V facility, or any other person, may not circumvent the new source review requirements of 25 Pa. Code Chapter 127, Subchapter E by causing or allowing a pattern of ownership or development, including the phasing, staging, delaying or engaging in incremental construction, over a geographic area of a facility which, except for the pattern of ownership or development, would otherwise require a permit or submission of a plan approval application.

(b) No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of this permit, the Air Pollution Control Act or the regulations promulgated thereunder, except that with prior approval of the Department, the device or technique may be used for control of malodors.

#020 [25 Pa. Code §§ 127.402(d) & 127.513(1)]**Submissions**

(a) Reports, test data, monitoring data, notifications and requests for renewal of the permit shall be submitted to the:

Regional Air Program Manager
PA Department of Environmental Protection
(At the address given on the permit transmittal letter,
or otherwise notified)

**SECTION B. General Title V Requirements**

(b) Any report or notification for the EPA Administrator or EPA Region III should be addressed to:

Office of Air Enforcement and Compliance Assistance (3AP20)
United States Environmental Protection Agency
Region 3
1650 Arch Street
Philadelphia, PA 19103-2029

(c) An application, form, report or compliance certification submitted pursuant to this permit condition shall contain certification by a responsible official as to truth, accuracy, and completeness as required under 25 Pa. Code § 127.402(d). Unless otherwise required by the Clean Air Act or regulations adopted thereunder, this certification and any other certification required pursuant to this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

#021 [25 Pa. Code §§ 127.441(c) & 127.463(e); Chapter 139; & 114(a)(3), 504(b) of the CAA]**Sampling, Testing and Monitoring Procedures**

(a) The permittee shall perform the emissions monitoring and analysis procedures or test methods for applicable requirements of this Title V permit. In addition to the sampling, testing and monitoring procedures specified in this permit, the Permittee shall comply with any additional applicable requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.

(b) The sampling, testing and monitoring required under the applicable requirements of this permit, shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139 unless alternative methodology is required by the Clean Air Act (including §§ 114(a)(3) and 504(b)) and regulations adopted thereunder.

#022 [25 Pa. Code §§ 127.511 & Chapter 135]**Recordkeeping Requirements**

(a) The permittee shall maintain and make available, upon request by the Department, records of required monitoring information that include the following:

- (1) The date, place (as defined in the permit) and time of sampling or measurements.
- (2) The dates the analyses were performed.
- (3) The company or entity that performed the analyses.
- (4) The analytical techniques or methods used.
- (5) The results of the analyses.
- (6) The operating conditions as existing at the time of sampling or measurement.

(b) The permittee shall retain records of the required monitoring data and supporting information for at least five (5) years from the date of the monitoring sample, measurement, report or application. Supporting information includes the calibration data and maintenance records and original strip-chart recordings for continuous monitoring instrumentation, and copies of reports required by the permit.

(c) The permittee shall maintain and make available to the Department upon request, records including computerized records that may be necessary to comply with the reporting, recordkeeping and emission statement requirements in 25 Pa. Code Chapter 135 (relating to reporting of sources). In accordance with 25 Pa. Code Chapter 135, § 135.5, such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions. If direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the needed information by indirect means.

**SECTION B. General Title V Requirements****#023 [25 Pa. Code §§ 127.411(d), 127.442, 127.463(e) & 127.511(c)]****Reporting Requirements**

(a) The permittee shall comply with the reporting requirements for the applicable requirements specified in this Title V permit. In addition to the reporting requirements specified herein, the permittee shall comply with any additional applicable reporting requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.

(b) Pursuant to 25 Pa. Code § 127.511(c), the permittee shall submit reports of required monitoring at least every six (6) months unless otherwise specified in this permit. Instances of deviations (as defined in 25 Pa. Code § 121.1) from permit requirements shall be clearly identified in the reports. The reporting of deviations shall include the probable cause of the deviations and corrective actions or preventative measures taken, except that sources with continuous emission monitoring systems shall report according to the protocol established and approved by the Department for the source. The required reports shall be certified by a responsible official.

(c) Every report submitted to the Department under this permit condition shall comply with the submission procedures specified in Section B, Condition #020(c) of this permit.

(d) Any records, reports or information obtained by the Department or referred to in a public hearing shall be made available to the public by the Department except for such records, reports or information for which the permittee has shown cause that the documents should be considered confidential and protected from disclosure to the public under Section 4013.2 of the Air Pollution Control Act and consistent with Sections 112(d) and 114(c) of the Clean Air Act and 25 Pa. Code § 127.411(d). The permittee may not request a claim of confidentiality for any emissions data generated for the Title V facility.

#024 [25 Pa. Code § 127.513]**Compliance Certification**

(a) One year after the date of issuance of the Title V permit, and each year thereafter, unless specified elsewhere in the permit, the permittee shall submit to the Department and EPA Region III a certificate of compliance with the terms and conditions in this permit, for the previous year, including the emission limitations, standards or work practices. This certification shall include:

- (1) The identification of each term or condition of the permit that is the basis of the certification.
- (2) The compliance status.
- (3) The methods used for determining the compliance status of the source, currently and over the reporting period.
- (4) Whether compliance was continuous or intermittent.

(b) The compliance certification shall be postmarked or hand-delivered no later than thirty days after each anniversary of the date of issuance of this Title V Operating Permit, or on the submittal date specified elsewhere in the permit, to the Department and EPA in accordance with the submission requirements specified in condition #020 of this section.

#025 [25 Pa. Code § 127.3]**Operational Flexibility**

The permittee is authorized to make changes within the Title V facility in accordance with the following provisions in 25 Pa. Code Chapter 127 which implement the operational flexibility requirements of Section 502(b)(10) of the Clean Air Act and Section 6.1(i) of the Air Pollution Control Act:

- (1) Section 127.14 (relating to exemptions)
- (2) Section 127.447 (relating to alternative operating scenarios)
- (3) Section 127.448 (relating to emissions trading at facilities with federally enforceable emissions caps)
- (4) Section 127.449 (relating to de minimis emission increases)

**SECTION B. General Title V Requirements**

(5) Section 127.450 (relating to administrative operating permit amendments)

(6) Section 127.462 (relating to minor operating permit amendments)

(7) Subchapter H (relating to general plan approvals and operating permits)

#026 [25 Pa. Code §§ 127.441(d), 127.512(i) and 40 CFR Part 68]**Risk Management**

(a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).

(b) The permittee shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the Title V facility. The permittee shall submit the RMP to the federal Environmental Protection Agency according to the following schedule and requirements:

(1) The permittee shall submit the first RMP to a central point specified by EPA no later than the latest of the following:

(i) Three years after the date on which a regulated substance is first listed under § 68.130; or,

(ii) The date on which a regulated substance is first present above a threshold quantity in a process.

(2) The permittee shall submit any additional relevant information requested by the Department or EPA concerning the RMP and shall make subsequent submissions of RMPs in accordance with 40 CFR § 68.190.

(3) The permittee shall certify that the RMP is accurate and complete in accordance with the requirements of 40 CFR Part 68, including a checklist addressing the required elements of a complete RMP.

(c) As used in this permit condition, the term "process" shall be as defined in 40 CFR § 68.3. The term "process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or any combination of these activities. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.

(d) If the Title V facility is subject to 40 CFR Part 68, as part of the certification required under this permit, the permittee shall:

(1) Submit a compliance schedule for satisfying the requirements of 40 CFR Part 68 by the date specified in 40 CFR § 68.10(a); or,

(2) Certify that the Title V facility is in compliance with all requirements of 40 CFR Part 68 including the registration and submission of the RMP.

(e) If the Title V facility is subject to 40 CFR Part 68, the permittee shall maintain records supporting the implementation of an accidental release program for five (5) years in accordance with 40 CFR § 68.200.

(f) When the Title V facility is subject to the accidental release program requirements of Section 112(r) of the Clean Air Act and 40 CFR Part 68, appropriate enforcement action will be taken by the Department if:

(1) The permittee fails to register and submit the RMP or a revised plan pursuant to 40 CFR Part 68.

(2) The permittee fails to submit a compliance schedule or include a statement in the compliance certification required under Condition #24 of Section B of this Title V permit that the Title V facility is in compliance with the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68, and 25 Pa. Code § 127.512(i).

**SECTION B. General Title V Requirements****#027 [25 Pa. Code § 127.512(e)]****Approved Economic Incentives and Emission Trading Programs**

No permit revision shall be required under approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this Title V permit.

#028 [25 Pa. Code §§ 127.516, 127.450(d), 127.449(f) & 127.462(g)]**Permit Shield**

(a) The permittee's compliance with the conditions of this permit shall be deemed in compliance with applicable requirements (as defined in 25 Pa. Code § 121.1) as of the date of permit issuance if either of the following applies:

(1) The applicable requirements are included and are specifically identified in this permit.

(2) The Department specifically identifies in the permit other requirements that are not applicable to the permitted facility or source.

(b) Nothing in 25 Pa. Code § 127.516 or the Title V permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act, including the authority of the Administrator of the EPA provided thereunder.

(2) The liability of the permittee for a violation of an applicable requirement prior to the time of permit issuance.

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act.

(4) The ability of the EPA to obtain information from the permittee under Section 114 of the Clean Air Act.

(c) Unless precluded by the Clean Air Act or regulations thereunder, final action by the Department incorporating a significant permit modification in this Title V Permit shall be covered by the permit shield at the time that the permit containing the significant modification is issued.

**SECTION C. Site Level Requirements****I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §121.7]****Prohibition of air pollution.**

No person may permit air pollution, as that term is defined in the Air Pollution Control Act (35 PS Section 4003), except as specifically authorized elsewhere in this permit.

002 [25 Pa. Code §123.1]**Prohibition of certain fugitive emissions**

No person may permit the emission into the outdoor atmosphere of fugitive air contaminant from a source other than the following:

- (a) construction or demolition of buildings or structures;
- (b) grading, paving and maintenance of roads and streets;
- (c) use of roads and streets. Emissions from material in or on trucks, railroad cars and other vehicular equipment are not considered as emissions from use of roads and streets;
- (d) clearing of land;
- (e) stockpiling of materials;
- (f) open burning operations, as specified in 25 Pa. Code §129.14;
- (g) blasting in open pit mines. Emissions from drilling are not considered as emissions from blasting;
- (h) coke oven batteries, provided the fugitive air contaminants emitted from any coke oven battery comply with the standards for visible fugitive emissions in 25 Pa. Code §§ 123.44 and 129.15 (relating to limitations of visible fugitive air contaminants from operation of any coke oven battery; and coke pushing operations); and
- (i) sources and classes of sources other than those identified in (a)-(h), above, for which the permittee has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:
 - (1) the emissions are of minor significance with respect to causing air pollution; and
 - (2) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.

003 [25 Pa. Code §123.2]**Fugitive particulate matter**

A person may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in Condition #002, of this Section, if such emissions are visible at the point the emissions pass outside the person's property.

004 [25 Pa. Code §123.31]**Limitations**

The permittee may not permit the emission into the outdoor atmosphere of any malodorous air contaminants from any source in such a manner that the malodors are detectable outside the property of the person on whose land the source is being operated.

005 [25 Pa. Code §123.41]**Limitations**

The permittee may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- (a) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.
- (b) Equal to or greater than 60% at any time.

006 [25 Pa. Code §123.42]**Exceptions**

The limitations of Site Condition #005 shall not apply to a visible emission in any of the following instances:

- (a) When the presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (b) When the emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions.
- (c) When the emission results from sources specified in Site Condition #002.

**SECTION C. Site Level Requirements****# 007 [25 Pa. Code §129.14]****Open burning operations**

The permittee may not permit the open burning of material in the Southeast Air Basin, except when the open burning results from:

- (a) A fire set to prevent or abate a fire hazard, when approved by the Department and set by or under the supervision of a public officer.
- (b) Any fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.
- (c) A fire set solely for cooking food.
- (d) A fire set solely for recreational or ceremonial purposes.
- (e) A fire set for the prevention and control of disease or pests, when approved by the Department.

Fuel Restriction(s).**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this permit condition is derived from Consent Decree (Civil Action H-05-258)].

The permittee shall not burn fuel oil in any combustion devices except during period of natural gas curtailment, test runs, or operator training. This does not limit the permittee's ability to burn Torch Oil in the FCCU.

For the purposes of this condition, fuel oil is defined in the consent decree as any liquid fossil fuel with a sulfur content of greater than 0.05% sulfur, by weight.

II. TESTING REQUIREMENTS.**# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) If at any time DEP has cause to believe that air contaminant emissions from any source(s) listed in Section A of this Permit may be in excess of the limitations specified in this Permit, or established pursuant to any applicable rule or regulation contained in 25 Pa. Code Article III, the permittee shall be required to conduct whatever tests deemed necessary by DEP to determine the actual emission rate(s).
- (b) The permittee shall perform any required stack test using the Department approved procedures, every five (5) years or once within the life of the permit. Such testing shall be conducted at least twelve (12) months prior to the expiration of this permit. The stack test results shall be submitted for review no later than six (6) months before the permit expiration.
- (c) Such testing shall be conducted in accordance with EPA test method(s) and the provisions of 25 Pa. Code Chapter 139, when applicable, and in accordance with any restrictions or limitations established by DEP at such time as it notifies the permittee that testing is required.
- (d) At least forty-five (45) days prior to the test, the company shall submit to the Department for approval the procedures for the test and a sketch with dimensions indicating the location of sampling ports and other data to ensure the collection of representative samples.
- (e) At least fifteen (15) days prior to the test, the Regional Air Quality Manager, shall be informed of the date and time of the test.
- (f) Within sixty (60) days after the source test(s), two copies of the complete test report, including all operating conditions, shall be submitted to the Regional Air Quality Manager for approval.

III. MONITORING REQUIREMENTS.**# 010 [25 Pa. Code §123.43]****Measuring techniques**

Visible emissions may be measured using either of the following:

**SECTION C. Site Level Requirements**

- (a) A device approved by the Department and maintained to provide accurate opacity measurements.
- (b) Observers, trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.

011 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

- (a) The permittee shall operate and maintain the Department certified continuous monitor for hydrogen sulfide for all sources that are subject to 40 C.F.R. Part 60, Subpart J.
- (b) The permittee, on a daily basis, shall monitor the heating value of the refinery fuel gas using gas chromatography, calorimeter or another Department approved method. The permittee may apply to the Department to change the monitoring schedule based upon the results of the daily monitoring.
- (c) The permittee shall monitor the facility, once per operating day, for the following:
 - (1) Odors which may be objectionable (as per 25 Pa. Code §123.31).
 - (2) Visible Emissions (as per 25 Pa. Code §§123.41 and 123.42).
 - (3) Fugitive Particulate Matter (as per 25 Pa. Code §§ 123.1 and 123.2).
- (d) Objectionable odors, fugitive particulate emissions, and visible emissions that are caused or may be caused by operations at the site shall:
 - (1) Be investigated;
 - (2) Be reported to the facility management, or individual(s) designated by the permittee;
 - (3) Have appropriate corrective action taken (for emissions that originate on-site); and
 - (4) Be recorded in a permanent written log.
- (e) After six (6) months of daily monitoring, and upon the permittee's request, the Department will determine the feasibility of decreasing the monitoring frequency to weekly for the next six month period.
- (f) After six (6) months of weekly monitoring, and upon the permittee's request, the Department will determine the feasibility of decreasing the frequency of monitoring to monthly.
- (g) The Department reserves the right to change the above monitoring requirements at any time, based on but not limited to the review of the compliance certification, complaints, monitoring results, and/or Department findings.

IV. RECORDKEEPING REQUIREMENTS.**# 012 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

- (a) The permittee shall maintain a record of all monitoring of fugitive emissions, visible emissions and odors required in Condition III, Monitoring Requirements, of this section, including those that deviate from the conditions found in this permit. The record of deviations shall contain, at a minimum, the following items:
 - (1) Date, time, and location of the incident(s).
 - (2) To the extent known, identification of the primary cause of the event.
 - (3) The corrective action taken, if necessary, to abate the situation and prevent future occurrences.
- (b) The permittee shall, on a daily basis, keep a record of the heating value of the refinery fuel gas that is combusted.
- (c) The permittee shall keep records of emission calculations, on a monthly and 12-month rolling basis, for each pollutant that has a emission limit(s) under each Source ID listed in Section D of this TVOP, and supporting records and/or documents such as, but not limited to, the following:
 - (1) CEM data;
 - (2) Emission factor(s) from the latest stack test(s), LDAR results, AP-42, and/or annual/bi-annual/5-yr tune-up results;
 - (3) Operating hours, production rates, fuel usages, fuel heating values, etc.

**SECTION C. Site Level Requirements****V. REPORTING REQUIREMENTS.****# 013 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall, within two (2) hours, of becoming knowledgeable, of any occurrence, notify the Department, at (484) 250-5920, of any malfunction of the source(s) or associated air pollution control devices listed in Sections A or H, of this permit, which results in, the emission of air contaminants in excess of the limitations specified in this permit, or regulation contained in 25 Pa. Code Article III that are not measured by a Department certified continuous monitor. Reports of excess emissions from these continuous monitors are also reported in conformance with 40 C.F.R. §§ 60.7(c) and 60.105(c)(3).

(b) Malfunction(s) (as defined in 40 C.F.R. § 60.2), which occur at this Title V facility, and pose(s) an imminent danger to health, safety, welfare, and the environment, and would violate permit conditions if the source were to continue to operate after the malfunction, shall immediately be reported to the Department by telephone at the above number.

(c) A written summary in the form of a letter or facsimile that is signed by authorized refinery personnel knowledgeable of the incident shall be submitted to the Department within two (2) business days (with a detailed report to be submitted within ten (10) business days), following the notification of the incident, and shall describe the following:

- (1) The malfunction(s).
- (2) The emission(s).
- (3) The duration.
- (4) Any corrective action taken.

The two (2) day notification may be sent to the Department via facsimile and shall be signed by an authorized refinery person knowledgeable of the incident.

(d) The permittee may request an extension of time, and the Department may grant the extension for reasonable cause.

(e) The permittee shall submit the following reports:

(1) An annual certificate of compliance, due by April 1st of each year, for the period covering January 1 through December 31 of the previous year. This certificate of compliance shall document compliance with all permit terms and conditions set forth in this Title V permit as required under condition #24 of section B of this permit.

(2) A semi annual deviation report, due by October 1, of each year, for the period covering January 1 through June 30 of the same year. Note: The annual certification of compliance fulfills the obligation for the second deviation reporting period (July 1 through December 31 of the previous year).

014 [25 Pa. Code §135.21]**Emission statements**

(a) The permittee shall submit by March 1, of each year, an annual emission statement for the preceding calendar year.

(b) The permittee may request an extension of time from the Department for the filing of an annual emission statement, and the Department may grant the extension for reasonable cause.

015 [25 Pa. Code §135.3]**Reporting**

If the permittee has been previously advised by the Department to submit a source report, the permittee shall submit by March 1, of each year, a source report for the preceding calendar year. The report shall include information from all previously reported sources, new sources which were first operated during the preceding calendar year, and sources modified during the same period which were not previously reported, including those sources listed in the Miscellaneous Section of this permit.

The permittee may request an extension of time from the Department for the filing of a source report, and the Department may grant the extension for reasonable cause.

016 [40 CFR Part 61 NESHAPs §40 CFR 61.145]**Subpart M--National Emission Standard for Asbestos Standard for demolition and renovation.**

SECTION C. Site Level Requirements

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

In the event that the permittee performs any demolition/renovation of asbestos containing material, as defined in 40 C.F.R. 61, Subpart M, for which advance notification is required pursuant to such regulations, then the permittee shall provide the Department with notification prior to any such demolition/renovation in accordance with the notification provisions of 40 C.F.R. 61, Subpart M.

**# 017 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) As per 40 C.F.R. §63.655(e), the permittee shall submit the reports listed in (a)(i) and (ii), below, and shall keep records as described in 40 C.F.R. § 63.655(i).

(i) Periodic reports as described in 40 C.F.R. § 63.654(g).

(ii) Other reports described in 40 C.F.R. § 63.655(h).

(b) Reports shall be submitted, as specified in 40 C.F.R. Part 63, Subpart A and as follows:

(i) Reports of startup, shutdown, and malfunction required by 40 C.F.R. § 63.10(d)(5). Records and reports of startup, shutdown, and malfunction are not required if they pertain solely to Group 2 (as defined in 40 C.F.R. § 63.641) emission points, that are not included in an emissions average. For purposes of this paragraph, startup and shutdown shall have the meaning defined in 40 C.F.R. § 63.641, and malfunction shall have the meaning defined in 40 C.F.R. § 63.2; and

(ii) The permittee shall submit the information specified in (b)(1) through (b)(3) of this condition, as applicable. For each new, modified, or reconstructed source subject to 40 C.F.R. Part 63, Subpart CC, the information shall be submitted with the application for approval of construction or reconstruction for the new, modified, or reconstructed source required by 40 C.F.R. § 63.5(d). The information may be submitted in an operating permit application, in an amendment to an operating permit application, or in a separate submittal.

(1) The determination of applicability of this subpart to petroleum refining process units that are designed and operated as flexible operation units.

(2) The determination of applicability of this subpart to any storage vessel for which use varies from year to year.

(3) The determination of applicability of this subpart to any distillation unit for which use varies from year to year.

VI. WORK PRACTICE REQUIREMENTS.

**# 018 [25 Pa. Code §123.1]
Prohibition of certain fugitive emissions**

A person responsible for any source specified in Condition #002 above shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:

(a) use, where possible, of water or suitable chemicals, for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.

(b) application of asphalt, water, or other suitable chemicals, on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.

(c) paving and maintenance of roadways.

(d) prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or by other means.

**SECTION C. Site Level Requirements****# 019 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) The permittee shall ensure that the source(s) and air pollution control device(s) listed in this permit are operated and maintained in a manner consistent with good operating and maintenance practices, and in accordance with manufacturers' specifications, unless otherwise specifically provided elsewhere in this permit.

(b) The permittee may not modify any air contaminant system identified in Section A, of this permit, prior to obtaining Department approval, except those modifications authorized by Condition #017(g), of Section B, of this permit.

(c) The permittee shall immediately, upon discovery, implement measures, which may include the application for the installation of an air cleaning device(s), if necessary, to reduce the air contaminant emissions to within applicable limitations, if at any time the operation of the source(s) identified in Section A, of this permit, is causing the emission of air contaminants in excess of the limitations specified in, or established pursuant to, 25 Pa. Code Article III or any other applicable rule promulgated under the Clean Air Act.

020 [25 Pa. Code §129.55]**Petroleum refineries--specific sources**

Purging of volatile organic compounds during depressurization of reactors, fractionating columns, pipes, or vessels during unit shut-down, repair, inspection, or startup shall be performed in such a manner as to direct the volatile organic vapors to a fuel gas system, flare, or vapor recovery system until the internal pressure in such equipment reaches 19.7 psia (136 kilopascals).

021 [25 Pa. Code §129.62]**General standards for bulk gasoline terminals/plants, and small gasoline storage tanks**

Gasoline may not be spilled or discarded in sewers or stored in open containers or handled in a manner that would result in uncontrolled evaporation to the atmosphere.

022 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.647]**Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Wastewater provisions.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

As defined in 40 C.F.R. § 63.641, all Group 1 wastewater streams shall comply with the requirements of 40 C.F.R. §§ 61.340 through 61.355 for each process wastewater stream that meets the definition in 40 C.F.R. § 63.641.

VII. ADDITIONAL REQUIREMENTS.**# 023 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall reduce emissions of Class I and Class II refrigerants during the service, maintenance, repair and disposal of equipment in accordance with the requirements of 40 C.F.R. 82, Subpart F recycling and emissions reduction.

024 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Incorporated into this TVOP are Plan Approval Nos.

23-0003S for a flare gas recovery project; and
23-0003Y for Boiler 14 construction

After demonstrating compliance with the terms and conditions of the Plan Approvals, the sources with their terms and conditions will be incorporated into this Title V Operating Permit through an Administrative Amendment.

The permittee shall comply with TVOP No. 23-00003 by complying with the terms and conditions of Plan Approval Nos. 23-0003S and 23-0003Y.

VIII. COMPLIANCE CERTIFICATION.

**SECTION C. Site Level Requirements**

No additional compliance certifications exist except as provided in other sections of this permit including Section B (relating to Title V General Requirements).

IX. COMPLIANCE SCHEDULE.

#025 11-NOV-15

Source ID 103 - Main flare shall be in compliance with the applicable requirements specified in 40 C.F.R. 60 Subpart Ja no later than November 11, 2015.

#026 31-JAN-16

Source ID 030 - Existing boilers and process heaters - must comply with 40 C.F.R. 63 Subpart DDDDD by January 31, 2016.

***** Permit Shield In Effect *****

**SECTION D. Source Level Requirements**

Source ID: 030

Source Name: MACT BOILERS AND PROCESS HEATERS

Source Capacity/Throughput:

I. RESTRICTIONS.**Fuel Restriction(s).****# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7499]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****What are the subcategories of boilers and process heaters?**

As per 40 C.F.R. §63.7499(l), the boilers and process heaters under Source ID 030 are in the subcategory of Units designed to burn gas 1 fuels.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7555]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****What records must I keep?**

(a) The permittee must keep a copy of each notification and report submitted to DEP to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirements in 40 C.F.R. §63.10(b)(2)(xiv).

(b) The permittee must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

(c) The permittee must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7560]**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****In what form and how long must I keep my records?**

(a) The records must be in a form suitable and readily available for expeditious review, according to 40 C.F.R. §63.10(b)(1).

(b) As specified in 40 C.F.R. §63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) The permittee must keep each record on site, or the records must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. §63.10(b)(1).

V. REPORTING REQUIREMENTS.**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7495]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****When do I have to comply with this subpart?**

The permittee must meet the notification requirements in 40 C.F.R. §63.7545 according to the schedule in 40 C.F.R. §63.7545 and in subpart A of 40 C.F.R. Part 63.

**SECTION D. Source Level Requirements****# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7530]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****How do I demonstrate initial compliance with the emission limits and work practice standards?**

(a) The permittee must submit a signed statement in the Notification of Compliance Status report that indicates that a tune-up of the unit was conducted.

(b) The permittee must include with the Notification of Compliance Status a signed certification that the energy assessment was completed according to Table 3 to 40 C.F.R. 63 Subpart DDDDD and is an accurate depiction of the unit at the time of the assessment.

(c) The permittee must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 C.F.R. §63.7545(e).

006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7545]**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****What notifications must I submit and when?**

The permittee must submit a Notification of Compliance Status according to 40 C.F.R. §63.9(h)(2)(ii). The Notification of Compliance Status must contain the information specified below, as per 40 C.F.R. §63.7545(e):

(1) A description of the unit including identification of which subcategories the unit is in, the design heat input capacity of the unit, description of the fuel(s) burned.

(2) In addition to the information required in 40 C.F.R. §63.9(h)(2), the notification of compliance status must include the following certification(s) of compliance, and signed by a responsible official:

(i) "This facility complies with the required initial tune-up according to the procedures in 40 C.F.R. §63.7540(a)(10)(i) through (vi)."

(ii) "This facility has had an energy assessment performed according to 40 C.F.R. §63.7530(e)."

007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7550]**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****What reports must I submit and when?**

The permittee must submit annual compliance reports for units without O2 trim system, as specified in paragraphs (1) through (4) of this section.

(1) The first compliance report must cover the period beginning on the compliance date and ending on January 31, the first date that occurs at least 1 year for submitting an annual compliance report after January 31, 2016.

(2) The first annual compliance report must be postmarked or submitted no later than January 31.

(3) Annual compliance reports must cover 1-year periods from January 1 to December 31.

(4) Annual compliance reports must be postmarked or submitted no later than January 31.

008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7550]**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****What reports must I submit and when?**

(a) The permittee must submit each report in Table 9 to 40 C.F.R. 63 Subpart DDDDD that applies.

(b) A compliance report must contain the following information.

**SECTION D. Source Level Requirements**

- (1) Company and Facility name and address.
- (2) Unit information.
- (3) Date of report and beginning and ending dates of the reporting period.
- (4) The total operating time during the reporting period.
- (5) The date of the most recent tune-up for the unit. The date of the most recent burner inspection if it was not done and was delayed until the next scheduled or unscheduled unit shutdown.
- (6) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7550]**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****What reports must I submit and when?**

For units equipped with O2 trim system, the permittee must submit 5-year compliance reports, as specified in paragraphs (1) through (4) below.

- (1) The first compliance report must cover the period beginning on the compliance date that is specified for the unit in 40 C.F.R. §63.7495 and ending on January 31, the first date that occurs at least 5 years after January 31, 2016.
- (2) The first 5-year compliance report must be postmarked or submitted no later than January 31.
- (3) 5-year compliance reports must cover the applicable 5-year periods from January 1 to December 31.
- (4) 5-year compliance reports must be postmarked or submitted no later than January 31.

VI. WORK PRACTICE REQUIREMENTS.**# 010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7500]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****What emission limits, work practice standards, and operating limits must I meet?**

- (a) The permittee must meet each work practice standard in Table 3 to 40 C.F.R. 63 Subpart DDDDD that applies to the unit.
- (b) At all times, the permittee must operate and maintain the unit in a manner consistent with safety and good air pollution control practices for minimizing emissions.

011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7510]**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****What are my initial compliance requirements and by what date must I conduct them?**

- (a) As per 40 C.F.R. §63.7510(e), the permittee must complete an initial tune-up by following the procedures described in 40 C.F.R. §63.7540(a)(10)(i) through (vi) no later than January 31, 2016 as specified in 40 C.F.R. §63.7495.
- (b) The permittee must complete a one-time energy assessment specified in Table 3 to 40 C.F.R. 63 Subpart DDDDD no later than January 31, 2016. The one-time energy assessment must be performed by a qualified energy assessor, and must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in 40 C.F.R. §63.7575:
 - a. A visual inspection of the unit system.
 - b. An evaluation of operating characteristics of the unit systems, specifications of energy using systems, operating and

**SECTION D. Source Level Requirements**

maintenance procedures, and unusual operating constraints.

c. An inventory of major energy use systems consuming energy from the unit.

d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.

e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified.

f. A list of cost-effective energy conservation measures that are within the facility's control.

g. A list of the energy savings potential of the energy conservation measures identified.

h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7515]

Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.

When must I conduct subsequent performance tests or fuel analyses?

As per 40 C.F.R. §63.7515, the permittee must conduct an annual tune-up for units without O2 trim system. Each annual tune-up specified in 40 C.F.R. §63.7540(a)(10) must be no more than 13 months after the previous tune-up.

013 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7515]

Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.

When must I conduct subsequent performance tests or fuel analyses?

For units equipped with O2 trim system, the permittee must conduct 5-year performance tune-up according to 40 C.F.R. §63.7540(a)(12). Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up.

014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7540]

Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.

How do I demonstrate continuous compliance with the emission limits and work practice standards?

As per 40 C.F.R. §63.7540(a)(10)(i) through (vi), each tune-up must be conducted by following the procedures specified below:

(i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the burner inspection may be delayed until the next scheduled unit shutdown);

(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the inspection may be delayed until the next scheduled unit shutdown);

(iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOX requirement to which the unit is subject;

(v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

(vi) Maintain on-site and submit, if requested by DEP, an annual report containing the following information,

**SECTION D. Source Level Requirements**

- (A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the unit;
- (B) A description of any corrective actions taken as a part of the tune-up; and
- (C) The type and amount of fuel used over the 12 months prior to the tune-up. Units sharing a fuel meter may estimate the fuel used by each unit.

VII. ADDITIONAL REQUIREMENTS.**# 015 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7490]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****What is the affected source of this subpart?**

The boilers and process heaters subject to 40 C.F.R. 63 Subpart DDDDD are:

Source ID	Source Name	Equipped with O2 Trim System and 5-year tune-up
034	Boiler 9	Yes
035	Boiler 10	Yes
733	FCCU FEED HEATER	
735	KEROSENE/HCN HTU HEATER	
736	DIESEL HTU HEATER	
737	NAPHTHA HDS HEATER	Yes
738	PLATFORMER FEED HEATER	Yes
739	ISOCRACKER 1ST STAGE HEATER	
740	ISOCRACKER SPLITTER RBLR	
741	D2/VGO HYDROTREATER FEED HEATER	
742	VCD 541 VAC HEATER	
743	VCD 542 VAC HEATER	
744	ACD 543 CRUDE HEATER	
745	ACD 544 CRUDE HEATER	Yes
746	VCD 544 VAC HEATER	

016 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7491]**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****Are any boilers or process heaters not subject to this subpart?**

As per 40 C.F.R. §63.7491(i), CO Boiler (Source ID C01) used as a control device to comply with subpart UUU of 40 C.F.R. part 63 is not subject to 40 C.F.R. 63 subpart DDDDD.

017 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7495]**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****When do I have to comply with this subpart?**

As per 40 C.F.R. §63.7495(b), the permittee must comply with 40 C.F.R. 63 subpart DDDDD no later than January 31, 2016.

018 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7565]**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****What parts of the General Provisions apply to me?**

The permittee shall comply with the parts of the General Provisions in 40 C.F.R. §§63.1 through 63.15 that apply by January 31, 2016.

019 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7575]**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.****What definitions apply to this subpart?**

**SECTION D. Source Level Requirements**

Due to direct heat transfer, Peabody Heater (Source ID 130) is not subject to the requirements of 40 C.F.R. 63 Subpart DDDDD as per the definition of Process Heaters specified in 40 C.F.R. §63.7575.

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

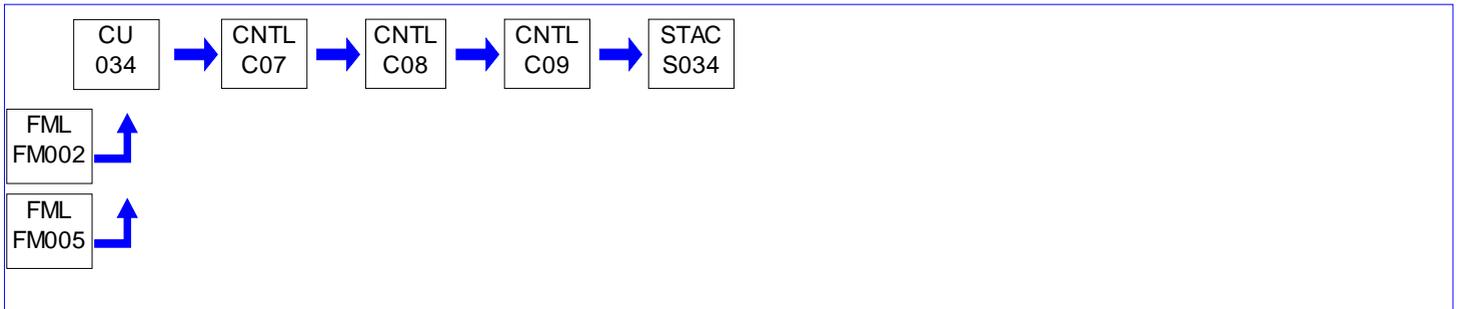
Source ID: 034

Source Name: BOILER 9

Source Capacity/Throughput: 349.600 MMBTU/HR

N/A Refinery Gas

N/A Natural Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) Stack emissions from this boiler shall not exceed any of the following:

(1) SO_x - 3.43 lbs/hr and 15.0 tons/12 consecutive month period [Compliance with these limits assure compliance with 25 Pa. Code § 123.22(e)(1) and 40 C.F.R. §60.104(a)(1)].(2) NO_x - 2.7 lbs/hr and 11.8 tons/12 consecutive month period [Compliance with these limits assure compliance with 40 C.F.R. §60.44b(a)(1)]

(3) VOC - 0.46 lbs/hr and 2.0 tons/12 consecutive month period;

(4) CO - 6.85 lbs/hr and 30.0 tons/12 consecutive month period;

(5) Total PM - 3.13 lbs/hr and 13.7 tons/12 consecutive month period [Compliance with these limits assures compliance with 25 Pa. Code §123.11(a)(2)];

(6) Total PM₁₀ - 3.13 lbs/hr and 13.7 tons/12 consecutive month period.(7) Total PM_{2.5} - 3.13 lbs/hr and 13.7 tons/12 consecutive month period.

(b) VOC fugitive emissions shall not exceed 1.65 tons/12 consecutive month period.

(c) The short term NO_x emission limit in (a), above, does not apply during periods of startup and shutdown of the boiler. For this boiler, a start-up and shut-down period shall be defined as:

(1) Start-up refers to the initial three (3) hours, 180 consecutive minutes for reporting up to four (4) consecutive clock hours, after a successful light off during start up; and

(2) Shutdown begins when the position of the fuel gas control valve is less than or equal to 20% open with the intent to shut down the boiler, and shutdown ends when the position of the fuel gas control valve is 0% open.

(d) The emissions from a start-up or shutdown shall be included in the 12-month rolling sum.

(e) The emissions of ammonia from the SCR system shall not exceed 10 ppmvd, corrected to 3% oxygen, as measured by stack test.

**SECTION D. Source Level Requirements****Fuel Restriction(s).****# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) This boiler shall fire Refinery Fuel Gas (RFG) and/or Natural gas only.
- (b) The H₂S concentration in the RFG supply line shall not exceed:
- (1) 50 ppmv on a 12-month rolling average, calculated monthly; and
 - (2) 162 ppmv (0.10 gr/dscf) on 3-hour average, rolling by 1-hour.

[Compliance with the H₂S limits assures compliance with 40 C.F.R. §§60.104(a)(1) and 60.40b(c).]

Control Device Efficiencies Restriction(s).**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) Emissions from this boiler shall be controlled as follows:
- (1) NO_x - Low NO_x Burners (LNB), Flue Gas Recirculation (FGR), and Selective Catalytic Reduction (SCR);
 - (2) CO - through the use of a CO catalyst; and
 - (3) VOC - through the use of the CO catalyst.
- (b) The catalyst bed inlet temperature shall be maintained at a minimum of 450°F at all times when this source is operating, except during startup, shutdown, and malfunctions. This minimum temperature has been determined during initial stack testing.

II. TESTING REQUIREMENTS.**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) Stack tests shall be performed once per permit term for the following pollutants:
- (1) PM;
 - (2) PM-10 and PM_{2.5} (filterable and condensable);
 - (3) VOC;
 - (4) Ammonia.
- (b) The stack tests shall be performed while the source is operating at the maximum rated capacity as stated in the application.
- (c) The permittee shall perform the above stack tests in accordance with the provisions of 40 C.F.R. §§ 60.8 and 63.7, and applicable Testing Requirements in Condition II of Section C of this permit.

III. MONITORING REQUIREMENTS.**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) The following DEP certified continuous monitors shall be installed, operated, and maintained to meet the minimum data availability requirements found in 25 Pa. Code, Chapter 139, and in accordance with 40 C.F.R. § 60.48b [Compliance with this condition assures compliance with 25 Pa. Code §123.51.]:
- (1) NO_x;
 - (2) CO; and
 - (3) H₂S in the North Yard RFG line.
- (b) The permittee shall continuously monitor and record the following:

**SECTION D. Source Level Requirements**

- (1) The catalyst bed inlet temperature
- (2) The fuel consumption by this boiler

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48b]
Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units
Emission monitoring for particulate matter and nitrogen oxides.**

The continuous NOx monitoring systems shall be operated and data recorded during all periods of operation of the source except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 C.F.R. §60.44b. The 1-hour averages shall be calculated using the data points required under 40 C.F.R. §60.13(h)(2).

IV. RECORDKEEPING REQUIREMENTS.

**# 007 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The permittee shall keep the following records:

- (a) Emissions from this boiler calculated on a monthly, and a 12-consecutive month basis for each pollutant listed in Condition #001 for this source.
- (b) The catalyst bed inlet temperature.
- (c) The fuel consumption by this boiler on a monthly basis.

**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.49b]
Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units
Reporting and recordkeeping requirements.**

The permittee shall maintain records of the following information for each steam generating unit operating day:

- (a) Calendar date.
- (b) The average hourly nitrogen oxides emission rates (expressed as NO₂) (ng/J or lb/million Btu heat input) measured or predicted.
- (c) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxides emission rates for the preceding 30 steam generating unit operating days.
- (d) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under 40 C.F.R. § 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.
- (e) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.
- (f) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
- (g) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
- (h) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

**SECTION D. Source Level Requirements**

- (i) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.
- (j) Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 C.F.R. Part 60, Appendix F, Procedure 1.

V. REPORTING REQUIREMENTS.

009 [25 Pa. Code §127.441]
Operating permit terms and conditions.

DEP certified continuous emission monitor (CEM) results shall be reported to DEP on a quarterly basis.

VI. WORK PRACTICE REQUIREMENTS.

010 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The ammonia feed system and the injection system shall be operated with feedback from the continuous monitors, such that the flue gas NOx concentration is maintained at or below the NOx concentrations specified for this boiler in this permit.

011 [25 Pa. Code §145.8.]
Transition to CAIR NOx Trading Programs.

- (a) Allowances. Allocations in 2009 will be made in accordance with the Federal CAIR Ozone Season Trading Program, 40 C.F.R. Part 97 (relating to Federal NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs). CAIR NOx Ozone Season allowance allocations for the control period starting May 1, 2010, and for each control period thereafter, will be distributed in accordance with 25 Pa. Code, Chapter 145, Subchapter D.
- (b) Termination and retirement of allowances. NOx allowances already allocated for 2009 or later are terminated and may not be used for compliance with the CAIR NOx Annual Trading Program or the CAIR NOx Ozone Season Trading Program, as those terms are defined in 40 C.F.R. §§96.102 and 96.302.
- (c) Requirements replaced. The emission limitations and monitoring requirements established in 25 Pa. Code, Chapter 145, Subchapter A, are replaced by the requirements in 25 Pa. Code, Chapter 145, Subchapter D, beginning with the May 1, 2010, control period. If the permittee has failed to demonstrate compliance with 25 Pa. Code §145.54, the provisions in 40 C.F.R. §96.354 shall be used to withhold CAIR NOx Ozone Season allowances, as that term is defined in 40 C.F.R. §96.302, in calendar year 2010 and beyond. If no CAIR NOx Ozone Season allowances are provided to the source under 25 Pa. Code §145.221, the permittee shall acquire and retire a number of CAIR NOx Ozone Season allowances as specified in 40 C.F.R. §96.354.
- (d) Non-EGU NOx Trading Program Budget:
- (1) Statewide limitation. The sum of NOx ozone season emissions from all non-EGUs subject to this subcondition may not exceed the Commonwealth's non-EGU NOx Trading Program budget of 3,619 tons during any ozone season.
 - (2) CAIR NOx Ozone Season allowances. The permittee shall monitor and report NOx emissions in accordance with 40 C.F.R. Part 96, Subpart HHHH, and establish a CAIR-authorized account representative and general account, in accordance with 40 C.F.R. Part 96, Subparts BBBB and FFFF, incorporated into 25 Pa. Code, Chapter 145, Subchapter D by reference, for the purposes of ensuring continued compliance with the non-EGU NOx Trading Program budget limitation of (d)(1), above, and of retiring CAIR NOx Ozone Season allowances.
 - (3) CAIR NOx allowances. The permittee shall establish a CAIR-authorized account representative and general account in accordance with 40 C.F.R. Part 96, Subparts BB and FF, incorporated into 25 Pa. Code, Chapter 145, Subchapter, D by reference, for the purpose of retiring CAIR NOx allowances.
 - (4) Emissions below Statewide limitation. If the total ozone season emissions from all non-EGUs are less than 3,438 tons of NOx, the Department's permanent retirement of allowances covers all applicable emissions and no additional account transactions are required by the sources.

**SECTION D. Source Level Requirements**

(5) Allowable emissions per unit. By January 31 of each year, DEP will determine the allowable amount of NOx emissions for the next ozone season for each unit subject to this subsection, as follows:

Allowable emission rate X each unit's heat input

Where "Allowable emission rate" is equal to

$$\frac{3,438 \text{ tons of NOx}}{\text{Combined heat input of all units during the most recent ozone season}}$$

(6) Allowance surrender for excess emissions. If the combined NOx emissions from all affected non-EGUs in the commonwealth exceed 3,438 tons in an ozone season, then a source whose actual emissions exceeds its allowable emissions for that ozone season, as determined under (d)(5), above, shall surrender to the Department by April 30 of the year following the ozone season one CAIR NOx Ozone Season allowance and one CAIR NOx allowance for each ton of excess emissions. A source whose excess emissions are 0.5 ton or greater of the next excess ton shall surrender 1 full ton of CAIR NOx allowances (banked or current) for that excess emission. Sources under common ownership may include the allowable and actual emissions from multiple sources to determine whether a unit must surrender allowances.

(7) Surrender procedure. To surrender allowances under (d)(6), above, The permittee shall surrender the required CAIR NOx Ozone Season allowances and CAIR NOx allowances to the Department's designated NOx allowance tracking system account and provide to the Department, in writing, the following:

- (i) the serial number of each allowance surrendered; and
- (ii) the calculations used to determine the quantity of allowances required to be surrendered.

(8) Failure to surrender allowances. If the permittee fails to comply with (d)(7), above, the permittee shall by June 30 surrender three CAIR NOx Ozone Season allowances and three CAIR NOx allowances of the current or later year vintage for each ton of excess emissions as calculated under (d)(6), above.

(9) Liability not affected. The surrender of CAIR NOx ozone season allowances and CAIR NOx allowances under (d)(6), above, does not affect the liability of the permittee for any fine, penalty or assessment, or an obligation to comply with any other remedy for the same violation, under the CAA or the act.

(i) For purposes of determining the number of days of violation, if a facility has excess emissions for the period May 1 through September 30, each day in that period (153 days) constitutes a day in violation unless the permittee demonstrates that a lesser number of days should be considered.

- (ii) Each ton of excess emissions is a separate violation.

(10) Actual emissions below allowable emissions. If a source's allowable emissions exceed their actual emissions for an ozone season, the permittee may deduct the difference or any portion of the difference from the actual emissions of source's under the permittee's common control that are subject to 25 Pa. Code §§129.201.

(11) Corrections. One hundred and eighty-one (181) tons of allowable NOx emissions are available to the Department annually for accounting corrections.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

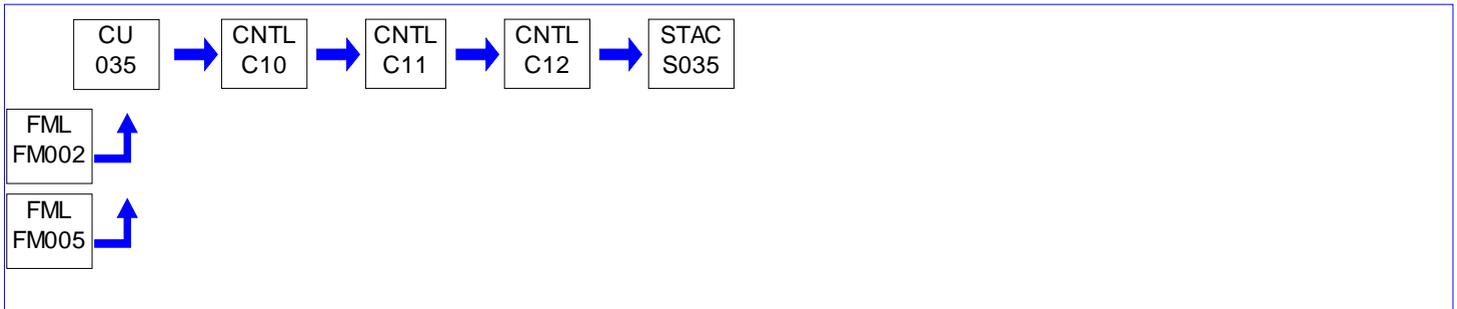
Source ID: 035

Source Name: BOILER 10

Source Capacity/Throughput: 349.600 MMBTU/HR

N/A Natural Gas

N/A Refinery Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) Stack emissions from this boiler shall not exceed any of the following:

(1) SO_x - 3.43 lbs/hr and 15.0 tons/12 consecutive month period [Compliance with these limits assure compliance with 25 Pa. Code § 123.22(e)(1) and 40 C.F.R. §60.104(a)(1)].(2) NO_x - 2.7 lbs/hr and 11.8 tons/12 consecutive month period [Compliance with these limits assure compliance with 40 C.F.R. §60.44b(a)(1)]

(3) VOC - 0.46 lbs/hr and 2.0 tons/12 consecutive month period;

(4) CO - 6.85 lbs/hr and 30.0 tons/12 consecutive month period;

(5) Total PM - 3.13 lbs/hr and 13.7 tons/12 consecutive month period [Compliance with these limits assures compliance with 25 Pa. Code §123.11(a)(2)];

(6) Total PM₁₀ - 3.13 lbs/hr and 13.7 tons/12 consecutive month period.(7) Total PM_{2.5} - 3.13 lbs/hr and 13.7 tons/12 consecutive month period.

(b) VOC fugitive emissions shall not exceed 1.65 tons/12 consecutive month period.

(c) The short term NO_x emission limit in (a), above, does not apply during periods of startup and shutdown of the boiler. For this boiler, a start-up and shut-down period shall be defined as:

(1) Start-up refers to the initial three (3) hours, 180 consecutive minutes for reporting up to four (4) consecutive clock hours, after a successful light off during start up; and

(2) Shutdown begins when the position of the fuel gas control valve is less than or equal to 20% open with the intent to shut down the boiler, and shutdown ends when the position of the fuel gas control valve is 0% open.

(d) The emissions from a start-up or shutdown shall be included in the 12-month rolling sum.

(e) The emissions of ammonia from the SCR system shall not exceed 10 ppmvd, corrected to 3% oxygen, as measured by stack test.

**SECTION D. Source Level Requirements****Fuel Restriction(s).****# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) This boiler shall fire Refinery Fuel Gas (RFG) and/or Natural gas only.

(b) The H₂S concentration in the RFG supply line shall not exceed:

(1) 50 ppmv on a 12-month rolling average, calculated monthly; and

(2) 162 ppmv (0.10 gr/dscf) on 3-hour average, rolling by 1-hour.

[Compliance with the H₂S limits assures compliance with 40 C.F.R. §§60.104(a)(1) and 60.40b(c).]

Control Device Efficiencies Restriction(s).**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) Emissions from this boiler shall be controlled as follows:

(1) NO_x - Low NO_x Burners (LNB), Flue Gas Recirculation (FGR), and Selective Catalytic Reduction (SCR);

(2) CO - through the use of a CO catalyst; and

(3) VOC - through the use of the CO catalyst.

(b) The catalyst bed inlet temperature shall be maintained at a minimum of 450°F at all times when this source is operating, except during startup, shutdown, and malfunctions. This minimum temperature has been determined during initial stack testing.

II. TESTING REQUIREMENTS.**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) Stack tests shall be performed once per permit term for the following pollutants:

(1) PM;

(2) PM-10 and PM_{2.5} (filterable and condensable);

(3) VOC;

(4) Ammonia.

(b) The stack tests shall be performed while the source is operating at the maximum rated capacity as stated in the application.

(c) The permittee shall perform the above stack tests in accordance with the provisions of 40 C.F.R. §§ 60.8 and 63.7, and applicable Testing Requirements in Condition II of Section C of this permit.

III. MONITORING REQUIREMENTS.**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The following DEP certified continuous monitors shall be installed, operated, and maintained to meet the minimum data availability requirements found in 25 Pa. Code, Chapter 139, and in accordance with 40 C.F.R. § 60.48b [Compliance with this condition assures compliance with 25 Pa. Code §123.51.]:

(1) NO_x;

(2) CO; and

(3) H₂S in the North Yard RFG line.

(b) The permittee shall continuously monitor and record the following:

**SECTION D. Source Level Requirements**

- (1) The catalyst bed inlet temperature
- (2) The fuel consumption by this boiler

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48b]
Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units
Emission monitoring for particulate matter and nitrogen oxides.**

The continuous NOx monitoring systems shall be operated and data recorded during all periods of operation of the source except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 C.F.R. §60.44b. The 1-hour averages shall be calculated using the data points required under 40 C.F.R. §60.13(h)(2).

IV. RECORDKEEPING REQUIREMENTS.

**# 007 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The permittee shall keep the following records:

- (a) Emissions from this boiler calculated on a monthly, and a 12-consecutive month basis for each pollutant listed in Condition #001 for this source.
- (b) The catalyst bed inlet temperature.
- (c) The fuel consumption by this boiler on a monthly basis.

**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.49b]
Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units
Reporting and recordkeeping requirements.**

The permittee shall maintain records of the following information for each steam generating unit operating day:

- (a) Calendar date.
- (b) The average hourly nitrogen oxides emission rates (expressed as NO₂) (ng/J or lb/million Btu heat input) measured or predicted.
- (c) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxides emission rates for the preceding 30 steam generating unit operating days.
- (d) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under 40 C.F.R. § 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.
- (e) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.
- (f) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
- (g) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
- (h) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

**SECTION D. Source Level Requirements**

- (i) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.
- (j) Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 C.F.R. Part 60, Appendix F, Procedure 1.

V. REPORTING REQUIREMENTS.

009 [25 Pa. Code §127.441]
Operating permit terms and conditions.

DEP certified continuous emission monitor (CEM) results shall be reported to DEP on a quarterly basis.

VI. WORK PRACTICE REQUIREMENTS.

010 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The ammonia feed system and the injection system shall be operated with feedback from the continuous monitors, such that the flue gas NOx concentration is maintained at or below the NOx concentrations specified for this boiler in this permit.

011 [25 Pa. Code §145.8.]
Transition to CAIR NOx Trading Programs.

(a) Allowances. Allocations in 2009 will be made in accordance with the Federal CAIR Ozone Season Trading Program, 40 C.F.R. Part 97 (relating to Federal NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs). CAIR NOx Ozone Season allowance allocations for the control period starting May 1, 2010, and for each control period thereafter, will be distributed in accordance with 25 Pa. Code, Chapter 145, Subchapter D.

(b) Termination and retirement of allowances. NOx allowances already allocated for 2009 or later are terminated and may not be used for compliance with the CAIR NOx Annual Trading Program or the CAIR NOx Ozone Season Trading Program, as those terms are defined in 40 C.F.R. §§96.102 and 96.302.

(c) Requirements replaced. The emission limitations and monitoring requirements established in 25 Pa. Code, Chapter 145, Subchapter A, are replaced by the requirements in 25 Pa. Code, Chapter 145, Subchapter D, beginning with the May 1, 2010, control period. If the permittee has failed to demonstrate compliance with 25 Pa. Code §145.54, the provisions in 40 C.F.R. §96.354 shall be used to withhold CAIR NOx Ozone Season allowances, as that term is defined in 40 C.F.R. §96.302, in calendar year 2010 and beyond. If no CAIR NOx Ozone Season allowances are provided to the source under 25 Pa. Code §145.221, the permittee shall acquire and retire a number of CAIR NOx Ozone Season allowances as specified in 40 C.F.R. §96.354.

(d) Non-EGU NOx Trading Program Budget:

(1) Statewide limitation. The sum of NOx ozone season emissions from all non-EGUs subject to this subcondition may not exceed the Commonwealth's non-EGU NOx Trading Program budget of 3,619 tons during any ozone season.

(2) CAIR NOx Ozone Season allowances. The permittee shall monitor and report NOx emissions in accordance with 40 C.F.R. Part 96, Subpart HHHH, and establish a CAIR-authorized account representative and general account, in accordance with 40 C.F.R. Part 96, Subparts BBBB and FFFF, incorporated into 25 Pa. Code, Chapter 145, Subchapter D by reference, for the purposes of ensuring continued compliance with the non-EGU NOx Trading Program budget limitation of (d)(1), above, and of retiring CAIR NOx Ozone Season allowances.

(3) CAIR NOx allowances. The permittee shall establish a CAIR-authorized account representative and general account in accordance with 40 C.F.R. Part 96, Subparts BB and FF, incorporated into 25 Pa. Code, Chapter 145, Subchapter, D by reference, for the purpose of retiring CAIR NOx allowances.

(4) Emissions below Statewide limitation. If the total ozone season emissions from all non-EGUs are less than 3,438 tons of NOx, the Department's permanent retirement of allowances covers all applicable emissions and no additional account transactions are required by the sources.

SECTION D. Source Level Requirements

(5) Allowable emissions per unit. By January 31 of each year, DEP will determine the allowable amount of NOx emissions for the next ozone season for each unit subject to this subsection, as follows:

Allowable emission rate X each unit's heat input

Where "Allowable emission rate" is equal to

$$\frac{3,438 \text{ tons of NOx}}{\text{Combined heat input of all units during the most recent ozone season}}$$

(6) Allowance surrender for excess emissions. If the combined NOx emissions from all affected non-EGUs in the commonwealth exceed 3,438 tons in an ozone season, then a source whose actual emissions exceeds its allowable emissions for that ozone season, as determined under (d)(5), above, shall surrender to the Department by April 30 of the year following the ozone season one CAIR NOx Ozone Season allowance and one CAIR NOx allowance for each ton of excess emissions. A source whose excess emissions are 0.5 ton or greater of the next excess ton shall surrender 1 full ton of CAIR NOx allowances (banked or current) for that excess emission. Sources under common ownership may include the allowable and actual emissions from multiple sources to determine whether a unit must surrender allowances.

(7) Surrender procedure. To surrender allowances under (d)(6), above, The permittee shall surrender the required CAIR NOx Ozone Season allowances and CAIR NOx allowances to the Department's designated NOx allowance tracking system account and provide to the Department, in writing, the following:

- (i) the serial number of each allowance surrendered; and
- (ii) the calculations used to determine the quantity of allowances required to be surrendered.

(8) Failure to surrender allowances. If the permittee fails to comply with (d)(7), above, the permittee shall by June 30 surrender three CAIR NOx Ozone Season allowances and three CAIR NOx allowances of the current or later year vintage for each ton of excess emissions as calculated under (d)(6), above.

(9) Liability not affected. The surrender of CAIR NOx ozone season allowances and CAIR NOx allowances under (d)(6), above, does not affect the liability of the permittee for any fine, penalty or assessment, or an obligation to comply with any other remedy for the same violation, under the CAA or the act.

(i) For purposes of determining the number of days of violation, if a facility has excess emissions for the period May 1 through September 30, each day in that period (153 days) constitutes a day in violation unless the permittee demonstrates that a lesser number of days should be considered.

- (ii) Each ton of excess emissions is a separate violation.

(10) Actual emissions below allowable emissions. If a source's allowable emissions exceed their actual emissions for an ozone season, the permittee may deduct the difference or any portion of the difference from the actual emissions of source's under the permittee's common control that are subject to 25 Pa. Code §§129.201.

(11) Corrections. One hundred and eighty-one (181) tons of allowable NOx emissions are available to the Department annually for accounting corrections.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 090

Source Name: EXISTING EMERGENCY COMPRESSION IGNITION ENGINES <500HP

Source Capacity/Throughput:

I. RESTRICTIONS.**Operation Hours Restriction(s).****# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6640]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?**

In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in this condition, is prohibited. If the engine is not operated according to paragraphs (1) through (3) below, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) Each emergency stationary RICE is limited to operate 500 hours per calendar year [as per more stringent requirements in 25 Pa. Code §129.93(c)(5)].

(2) The emergency stationary RICE may be operated for the purposes specified in this paragraph for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (3) below counts as part of the 100 hours per calendar year allowed by this paragraph. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (2) above. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6625]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What are my monitoring, installation, operation, and maintenance requirements?**

Each engine must be equipped with a non-resettable hour meter.

IV. RECORDKEEPING REQUIREMENTS.**# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6655]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What records must I keep?**

(a) The permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the stationary RICE is operated and maintained according to permittee's maintenance plan.

**SECTION D. Source Level Requirements**

(b) The permittee must keep records of the hours of operation of each engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6660]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****In what form and how long must I keep my records?**

(a) The records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in § 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) The permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1).

V. REPORTING REQUIREMENTS.**# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6595]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****When do I have to comply with this subpart?**

The permittee must meet the applicable notification requirements in 40 C.F.R. Part 63 subpart A and §63.6645.

006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6650]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What reports must I submit and when?**

If any emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

VI. WORK PRACTICE REQUIREMENTS.**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6605]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What are my general requirements for complying with this subpart?**

(a) The permittee must be in compliance with the requirements in this subpart that apply at all times.

(b) At all times the permittee must operate and maintain the source, including monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6625]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What are my monitoring, installation, operation, and maintenance requirements?**

(a) The permittee must operate and maintain the generators according to the manufacturer's emission-related written instructions or develop owner's maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

(b) The permittee must minimize each engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission

**SECTION D. Source Level Requirements**

standards applicable to all times other than startup in Table 2c to this subpart apply.

(c) The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2c to this subpart. The oil analysis must be performed in accordance with the specifications specified in 40 C.F.R. §63.6625(i).

009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6640]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?**

The permittee must demonstrate continuous compliance with each requirement in Table 2c to 40 C.F.R. 63 Subpart ZZZZ that apply according to methods specified in Table 6 to 40 C.F.R. 63 Subpart ZZZZ.

VII. ADDITIONAL REQUIREMENTS.**# 010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6590]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What parts of my plant does this subpart cover?**

Source ID 090 covers the following Existing Emergency Generators firing diesel fuel:

Engine ID	Name	Make	Model	HP	Installation Date	liters per cylinder
10620376	Firewater Pump 3	Cummins	NT-855-F1	255	6/10/2004	2.3
10620617	Firewater Pump 4	Caterpillar Inc	3406C	420	6/10/2004	2.4
10620619	Firewater Pump 5	Caterpillar Inc	3406B DIT	420	6/10/2004	2.4
12032752	CCR Generator	Cummins	NT-855-GS2	270	6/10/2004	2.3

011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6595]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****When do I have to comply with this subpart?**

The permittee must comply with the applicable requirements no later than May 3, 2013.

012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6665]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What parts of the General Provisions apply to me?**

The permittee must comply with the parts of the General Provisions in §§63.1 through 63.15 that apply.

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 091

Source Name: NEW EMERGENCY COMPRESSION IGNITION ENGINES (IC <30LITER)

Source Capacity/Throughput:

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

The permittee shall not emit into the outdoor atmosphere of particulate matter from this source in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

002 [25 Pa. Code §123.21]**General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from this source in a manner that the concentration of the sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

003 [25 Pa. Code §123.41]**Limitations**

The permittee shall not emit into the outdoor atmosphere of visible air contaminants from this source in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.
- (2) Equal to or greater than 60% at any time.

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4205]**Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

(a) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in 40 C.F.R. §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(b) The new nonroad CI engine(s) under source ID 091 must comply with the emission standards for all pollutants as specified in 40 C.F.R. §60.4202(a)(2), as per 40 C.F.R. §60.4205(b).

(c) As per 40 C.F.R. §60.4202(a)(2), the emission standards for new nonroad CI engines for the same model year and maximum engine power are in 40 C.F.R. §89.112 for all pollutants beginning in model year 2007. The exhaust emission from this engine shall not exceed the exhaust emission standards as follows:

- (1) NMHC + NO_x: 4.0 g/kW-hr
- (2) CO: 3.5 g/kW-hr
- (3) PM: 0.20 g/kW-hr

005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4206]**Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?**

The permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 C.F.R. §60.4205 over the entire life of the engine.

Fuel Restriction(s).**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4207]****Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?**

Beginning October 1, 2010, the permittee must use diesel fuel that meets the requirements of 40 C.F.R. 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

**SECTION D. Source Level Requirements****Operation Hours Restriction(s).****# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]****Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**

The permittee must operate the emergency stationary ICE according to the requirements in paragraphs (1) through (3) below. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (1) through (3) below, is prohibited. If the engine is not operated according to the requirements in paragraphs (1) through (3) below, the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines in 40 C.F.R. 60 Subpart IIII.

(1) Each emergency stationary ICE is limited to 500 operating hours per calendar year [as per more stringent requirements in 25 Pa. Code §§127.12(a)(5) and/or 129.93(c)(5)].

(2) The permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraphs (c)(2)(i) below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (c)(3) below counts as part of the 100 hours per calendar year allowed by this paragraph (c)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (c)(2) above. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Each engine shall be equipped with a non-resettable hour meter to monitor and indicate the operating hours.

IV. RECORDKEEPING REQUIREMENTS.**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4214]****Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?**

The permittee must record the time of operation of the engine(s) and the reason the engine was in operation during that time each time the engine was operated.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**SECTION D. Source Level Requirements****VI. WORK PRACTICE REQUIREMENTS.**

**# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]
Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**

(a) The permittee must

(1) Operate and maintain the stationary CI internal combustion engine according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 C.F.R. parts 89 and/or 1068, as they apply.

(b) The permittee must comply by purchasing an engine certified to the emission standards in 40 C.F.R. §60.4205(b) for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications.

VII. ADDITIONAL REQUIREMENTS.

**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4218]
Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What parts of the General Provisions apply to me?**

The permittee must comply with the applicable parts of the General Provisions in §§60.1 through 60.19.

**# 012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6590]
Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
What parts of my plant does this subpart cover?**

(a) The engine(s) under this source ID must meet the requirements of 40 C.F.R. part 63 by meeting the requirements of 40 C.F.R. part 60 subpart III, for compression ignition engines.

(b) Source ID 091 covers the following Emergency Generator(s) firing diesel fuel:

Engine ID	Name	Make	Model	HP	Installation Date	L/cylinder
12032750	Boiler Complex Generator	Caterpillar Inc	C-15	490	6/12/2008	2.5
FTE01256	IT Bldg Generator	Caterpillar Inc	C15	619	3/13/2014	2.53

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 092

Source Name: YANMAR CI RICE (LP BASEMENT GODWIN PUMP)

Source Capacity/Throughput:

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.**# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6625]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What are my monitoring, installation, operation, and maintenance requirements?**

As per 40 C.F.R. §63.6625(i), as part of the oil analysis program and the maintenance plan for the engine., the permittee must keep records of

- (1) The parameters that are analyzed,
- (2) The results of the analysis, and
- (3) The oil changes for the engine.

002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6655]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What records must I keep?**

As per 40 C.F.R. §63.6655(e), the permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the stationary RICE was operated and maintained according to owner's maintenance plan.

003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6660]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****In what form and how long must I keep my records?**

- (a) The records must be in a form suitable and readily available for expeditious review according to 40 C.F.R. §63.10(b)(1).
- (b) As specified in 40 C.F.R. §63.10(b)(1), the permittee must keep each record for 5 years following the date of each maintenance, corrective action, report, or record.
- (c) The permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each maintenance, corrective action, report, or record, according to 40 C.F.R. §63.10(b)(1).

V. REPORTING REQUIREMENTS.**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6640]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?**

As per the Foot Note 1 of Table 2c to 40 C.F.R. 63 Subpart ZZZZ, the permittee must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

**SECTION D. Source Level Requirements****VI. WORK PRACTICE REQUIREMENTS.****# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6602]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?**

The permittee must comply with the applicable requirements in Item No. 2 of Table 2c to 40 C.F.R. 63 Subpart ZZZZ as follows:

- (a) Change oil and filter every 1,000 hours of operation or annually, whichever comes first;
- (b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
- (c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6605]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What are my general requirements for complying with this subpart?**

- (a) The permittee must be in compliance with the requirements in this subpart that apply.
- (b) At all times the permittee must operate and maintain the source in a manner consistent with safety and good air pollution control practices for minimizing emissions.

007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6625]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What are my monitoring, installation, operation, and maintenance requirements?**

- (a) As per 40 C.F.R. §63.6625(e), the permittee must operate and maintain the stationary RICE according to the manufacturer's emission-related written instructions or develop owner's maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- (b) As per 40 C.F.R. §63.6625(h), the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
- (c) As per 40 C.F.R. §63.6625(i), the permittee may use an oil analysis program in order to extend the specified oil change requirement in Table 2c to 40 C.F.R. 63 subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c to 40 C.F.R. 63 subpart ZZZZ. The analysis program must at a minimum analyze the following three parameters:

- (1) Total Base Number,
- (2) Viscosity, and
- (3) Percent water content.

The condemning limits for these parameters are as follows:

- (1) Total Base Number is less than 30 percent of the Total Base Number of the oil when new;
- (2) Viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or
- (3) Percent water content (by volume) is greater than 0.5.

If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The analysis program must be part of the maintenance plan for the engine.

**SECTION D. Source Level Requirements****# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6640]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?**

The permittee must demonstrate continuous compliance by

(a) Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

(b) Develop and follow owner's maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

VII. ADDITIONAL REQUIREMENTS.**# 009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6590]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What parts of my plant does this subpart cover?**

The following is an existing CI RICE under Source ID 092

Engine Name	Manufacturer	Model	HP	Location
LP Basement Godwin Pump	Yanmar	3TNV88	28	Boiler House

010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6595]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****When do I have to comply with this subpart?**

The permittee must comply with the applicable requirements no later than May 3, 2013.

011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6665]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What parts of the General Provisions apply to me?**

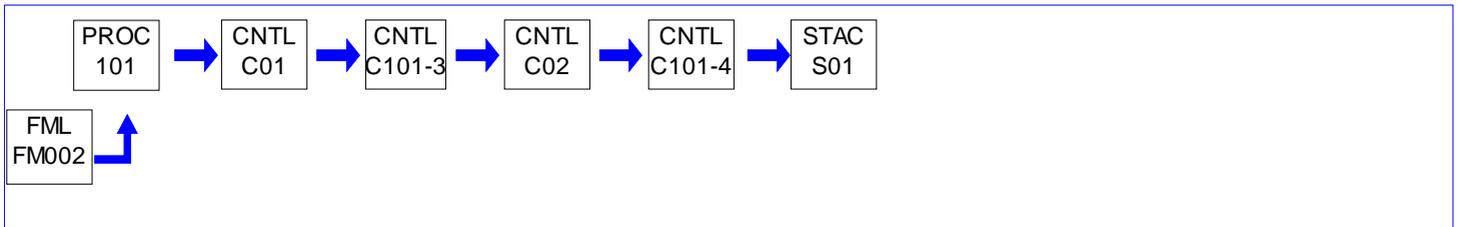
The permittee must comply with the general provisions in 40 C.F.R. §§63.1 through 63.15 that apply.

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 101

Source Name: FCC UNIT

Source Capacity/Throughput: 2,167.000 BBL/HR
N/AGAS OIL
COKE-REGENERATO**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Emissions from this source including the air cleaning devices shall not exceed any of the following:

(a) Nitrogen Oxides (NOx) emissions shall not exceed

i. 121.1 ppmvd as 365-day rolling average at 0 percent oxygen. This limit applies at all times when the FCCU and/or CO boiler are operating.

ii. 155.3 ppmvd as 7-day rolling average at 0 percent oxygen. This limit applies at all times when the FCCU and/or CO boiler are operating, except during periods of startup, shutdown, or malfunction.

iii. 500 ppmvd as 3-hour average at 0 percent oxygen; and

iv. 654.5 tons per year calculated as a 12-month rolling sum.

(b) Carbon Monoxide (CO) emissions shall not exceed 500 ppmvd as 1-hour average at 0 percent oxygen, and 434.1 tons per year calculated as a 12-month rolling sum. Compliance with CO emission limit of 500ppmvd assured compliance with 40 C.F.R. §§60.103(a) and 63.1565(a)(1).

(c) Volatile Organic Compounds (VOCs) emissions shall not exceed 8.1 tons per year calculated as a 12-month rolling sum.

(d) Particulate Matter (PM) emissions shall not exceed 93.3 tons per year calculated as a 12-month rolling sum and 0.5lb/1000lb coke burned on a 3-hour average basis. Compliance with this PM emission limit assured compliance with 40 C.F.R. §§60.102(a)(1) and 63.1564(a)(1).

(e) Ammonia (NH3) emissions shall not exceed 25 ppmvd corrected to 0 percent oxygen.

(f) Sulfur Dioxide (SO2) emissions shall not exceed 50 ppmvd corrected to 0 percent oxygen, calculated daily as a 7-day rolling average basis, 25 ppmvd corrected to 0 percent oxygen, calculated as a 365-day rolling average, and 165.8 tons per year calculated as a 12-month rolling period.

(g) The permittee shall comply with 25 Pa. Code Section 123.41, regarding visible emissions and/or 40 C.F.R. Section 60.102(a)(2), regarding the standard for opacity, whichever is more stringent.

002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1570]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my general requirements for complying with this subpart?**

a. The permittee shall be in compliance with all of the non-opacity standards set forth in 40 C.F.R. 63 Subpart UUU. The non-opacity emission standards shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in 40 C.F.R. 63 Subpart UUU, then that emission point must still be required to comply with the non-opacity emission

**SECTION D. Source Level Requirements**

b. The permittee shall be in compliance with the opacity and visible emission limits. The opacity and visible emission standards set forth in 40 C.F.R. 63 Subpart UUU must apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the opacity and visible emission standards set forth in 40 C.F.R. 63 Subpart UUU, then that emission point shall still be required to comply with the opacity and visible emission standards and other applicable requirements.

Throughput Restriction(s).

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The amount of coke combusted in the FCCU regenerator shall not exceed 42,554 pounds per hour, calculated as a 30-day rolling average.

Control Device Efficiencies Restriction(s).

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The wet gas scrubber (Source ID: C101-4) shall be operated to maintain a minimum of liquid-to-gas ratio at or above 0.08 gallons/dscf on an hourly average.

II. TESTING REQUIREMENTS.

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

(a) The permittee shall conduct a stack test to demonstrate compliance with particulate matter (PM) emissions restrictions of this source and CO Boiler once per permit term, but no less frequent than once every five (5) years.

(b) As per Paragraph 83 of the Consent Decree (Civil Action No. H-05-0258), the permittee shall conduct annual PM emissions testing using the methods specified in 40 C.F.R. §60.106(b)(2). Upon demonstrating through at least three (3) annual tests that the PM limits are not being exceeded, the permittee may request approval from DEP to reduce testing frequency to less than annually.

(c) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40 C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and with the applicable Testing Requirements specified in Section C of this permit.

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]

Subpart J - Standards of Performance for Petroleum Refineries**Test methods and procedures.**

The permittee shall use the test methods in 40 C.F.R. 60 Appendix A and/or the methods and procedures as specified in 40 C.F.R. §60.106, except as provided in 40 C.F.R. §60.8(b).

007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1571]

Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units**How and when do I conduct a performance test or other initial compliance demonstration?**

a. The permittee shall conduct performance tests in compliance with 40 C.F.R. §63.1571(b).

b. The permittee shall use the procedures specified in 40 C.F.R. §63.1571(c) for any engineering assessment.

c. The permittee shall comply with the applicable requirements specified in 40 C.F.R. §63.1571(d) to adjust the process or control device measured values when establishing an operating limit.

d. The permittee shall comply with the applicable requirements specified in 40 C.F.R. §63.1571(e)(1) through (3) to change the established operating limit.

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.****# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this permit condition is also derived from Consent Decree (Civil Action H-05-258).]

(a) The permittee shall operate and maintain DEP certified continuous emission monitors for nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), and oxygen (O₂) on the FCC Unit in accordance with the applicable provisions of 40 C.F.R. §§ 60.13 and 60.105, 40 C.F.R. 60, Appendices A and F, and the performance specifications of 40 C.F.R. 60, Appendix B.

(b) The permittee shall monitor and record

(1) The ratio of liquid-to-gas of the wet gas scrubber (Source ID: C101-4).

(2) The amount of reagent flowing to the SNCR system (Source ID: C101-3).

(c) The permittee shall monitor and record the following for the FCC Unit:

(1) The amount of fuel consumed on a daily basis.

(2) The H₂S content of the fuel consumed.

(3) The BTU content of the fuel consumed.

(4) The sulfur content of the FCC Unit feed.

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

a. The permittee shall monitor and record daily the following:

i. Average coke burn-off rate (tons per hour) and hours of operation of the FCC Unit.

ii. The rate of combustion of liquid fuels and the hours of operation during which liquid fuels are combusted in the CO Boiler (Source ID C01).

b. The permittee shall monitor and record the liquid-to-gas ratio (gallon/dscf) of the wet gas scrubber (Source ID: C101-4) on an hourly average.

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.109]**Subpart J - Standards of Performance for Petroleum Refineries****Delegation of authority.**

The permittee shall obtain the USEPA approval, if seeking compliance with 40 C.F.R. §60.104(b)(1) under 40 C.F.R. §60.105(a)(13)(iii).

011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1572]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my monitoring installation, operation, and maintenance requirements?**

a. The permittee shall operate and maintain CO, SO₂, O₂ continuous emission monitoring systems according to the requirements specified in paragraphs (a)(1) through (4) of 40 C.F.R. §63.1572.

b. The permittee shall use the US EPA approved alternative monitoring plan (AMP) to conduct performance test and operate and maintain the liquid-to-gas ratio monitoring system in lieu of a continuous opacity monitoring system to determine compliance with 40 C.F.R. §60.102(a).

c. The permittee shall operate and maintain each continuous parameter monitoring system according to the requirements in paragraphs (1) through (5) of 40 C.F.R. §63.1572(c).

d. The permittee shall monitor and collect data according to the requirements in paragraphs (1) through (2) of 40 C.F.R.

**SECTION D. Source Level Requirements**

§63.1572(d).

IV. RECORDKEEPING REQUIREMENTS.**# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall keep the following records:

- i. The amount of fuel consumed on a daily basis.
- ii. The H₂S content of the fuel consumed.
- iii. The BTU content of the fuel consumed.
- iv. The sulfur content of the FCCU feed.

(b) The permittee shall keep records of the emissions specified in emission restrictions for the FCC Unit on a monthly basis and 12-month rolling sum.

(c) The permittee shall keep records of the amount of coke combusted in the FCC Unit on a daily basis and calculated as an hourly average and 30 day rolling average.

(d) The permittee shall keep the following records for the air pollution control devices:

- i. The wet gas scrubber liquid-to-gas ratio on an hourly basis.
- ii. The amount of reagent flowing to the SNCR system on an hourly basis.
- iii. The operating parameters that are used to calculate the above parameters.

013 [25 Pa. Code §129.204]**Emission accountability.**

The permittee may develop an alternative calculation and recordkeeping procedure based upon emissions testing and correlations with operating parameters. The permittee shall demonstrate that the alternate procedure does not underestimate actual emissions throughout the allowable range of operating conditions. The alternate calculation and recordkeeping procedures must be approved by DEP, in writing, prior to implementation.

014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]**Subpart J - Standards of Performance for Petroleum Refineries****Reporting and recordkeeping requirements.**

The permittee shall record and maintain the information specified in 40 C.F.R. §60.107(b)(1) and (4).

V. REPORTING REQUIREMENTS.**# 015 [25 Pa. Code §123.46]****Monitoring requirements**

All certified emission monitor results shall be reported to the Department on a quarterly basis.

016 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The FCC Unit is subject to 40 C.F.R. 60 Subpart J of the Standards of Performance for New Stationary Sources and 40 C.F.R. 63 Subpart UUU of the National Emission Standards for Hazardous Air Pollutants for Refineries, and shall comply with all applicable requirements of the Subparts. 40 C.F.R. Sections 60.4 and 63.13 require submission of copies of all requests, reports, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Section B of this permit.

017 [25 Pa. Code §129.204]

**SECTION D. Source Level Requirements****Emission accountability.**

The permittee shall monitor NOx emissions and report the data from the CEMS in accordance with 25 Pa. Code, Chapter 139 or Chapter 145 (relating to interstate pollution transport reduction). Any data invalidated under Chapter 139 shall be substituted with data calculated using the potential emission rate for the unit or, if approved by DEP in writing, an alternative amount of emissions that is more representative of actual emissions that occurred during the period of invalid data.

018 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

For the purpose of reports under 40 C.F.R. §60.7(c), periods of excess emission that shall be determined and reported are:

CO - All 1-hour periods during which the average CO concentration as measured by the CO continuous monitoring system exceeds 500ppm..

SO₂ - All 7-day periods during which the average concentration of SO₂ as measured by the SO₂ CEM system exceed 50ppm (dry basis, zero percent excess air).

SO₂ - All 365-day periods during which average concentration of SO₂ as measured by the SO₂ CEM system exceed 25ppm (dry basis, zero percent excess air).

Opacity - All 1-hour period during which the measured liquid-to-gas ratio of the wet gas scrubber (Source ID: C101-4) is below the required minimum of 0.08 gallons/dscf.

019 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]**Subpart J - Standards of Performance for Petroleum Refineries****Reporting and recordkeeping requirements.**

The permittee shall submit a report in accordance with 40 C.F.R. §60.107(c), (d), (f), and (g).

020 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1570]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my general requirements for complying with this subpart?**

The permittee shall report each instance in which each emission limitation and each operating limit was not met. This includes periods of startup, shutdown, and malfunction. The permittee shall report each instance in which the applicable work practice standards were not met. These instances are deviations from the emission limitations and work practice standards in this subpart. These deviations must be reported according to the requirements in 40 C.F.R. §63.1575.

021 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1575]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What reports must I submit and when?**

(a) The permittee shall submit each report required in Table 43 of 40 C.F.R. Part 63 Subpart UUU.

(b) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(c) The compliance report must contain the information required below:

- (1) Company name and address.
- (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
- (3) Date of report and beginning and ending dates of the reporting period.
- (4) If there are no deviations from any emission limitation that applies to the permittee and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations or

**SECTION D. Source Level Requirements**

work practice standards during the reporting period and that no continuous emission monitoring system or continuous opacity monitoring system was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.

(d) For each deviation from an emission limitation and for each deviation from the requirements for work practice standards that occurs at an affected source where the permittee are not using a continuous opacity monitoring system or a continuous emission monitoring system to comply with the emission limitation or work practice standard in this subpart, the compliance report must contain the information in paragraphs (c)(1) through (3) above and the information in paragraphs (d)(1) through (3) below.

- (1) The total operating time of each affected source during the reporting period.
- (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- (3) Information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks).

(e) For each deviation from an emission limitation occurring at an affected source using a continuous emission monitoring system to comply with the emission limitation, the permittee must include the information in paragraphs (d)(1) through (3) above and the information in paragraphs (e)(1) through (13) below.

- (1) The date and time that each malfunction started and stopped.
- (2) The date and time that each continuous opacity monitoring system or continuous emission monitoring system was inoperative, except for zero (low-level) and high-level checks.
- (3) The date and time that each continuous opacity monitoring system or continuous emission monitoring system was out-of-control, including the information in 40 C.F.R. §63.8(c)(8).
- (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
- (5) A summary of the total duration of the deviation during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging period specified in the regulation for other types of emission limitations), and the total duration as a percent of the total source operating time during that reporting period.
- (6) A breakdown of the total duration of the deviations during the reporting period and into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
- (7) A summary of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging time specified in the regulation for other types of standards), and the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system as a percent of the total source operating time during that reporting period.
- (8) A breakdown of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.
- (9) An identification of each HAP that was monitored at the affected source.
- (10) A brief description of the process units.
- (11) The monitoring equipment manufacturer(s) and model number(s).
- (12) The date of the latest certification or audit for the continuous opacity monitoring system or continuous emission monitoring system.
- (13) A description of any change in the continuous emission monitoring system or continuous opacity monitoring system, processes, or controls since the last reporting period.

(f) The permittee also must include the information required in paragraphs (f)(1) through (2) below in each compliance report, if applicable.

- (1) A copy of any performance test done during the reporting period on any affected unit. The report may be included in the next semiannual report. The copy must include a complete report for each test method used for a particular kind of emission point tested. For additional tests performed for a similar emission point using the same method, the permittee must submit the results and any other information required, but a complete test report is not required. A complete test report contains a brief process description; a simplified flow diagram showing affected processes, control equipment, and

**SECTION D. Source Level Requirements**

sampling point locations; sampling site data; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; documentation of calculations; and any other information required by the test method.

(2) Any requested change in the applicability of an emission standard (e.g., the permittee want to change from the PM standard to the Ni standard for catalytic cracking units or from the HCl concentration standard to percent reduction for catalytic reforming units) in the periodic report. The permittee must include all information and data necessary to demonstrate compliance with the new emission standard selected and any other associated requirements.

(g) The permittee may submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.

(h) The reporting requirements in paragraphs (h)(1) and (2) below apply to startups, shutdowns, and malfunctions:

(1) When actions taken to respond are consistent with the plan, the permittee are not required to report these events in the semiannual compliance report and the reporting requirements in 40 C.F.R. §§63.6(e)(3)(iii) and 63.10(d)(5) do not apply.

(2) When actions taken to respond are not consistent with the plan, the permittee must report these events and the response taken in the semiannual compliance report. In this case, the reporting requirements in 40 C.F.R. §§63.6(e)(3)(iv) and 63.10(d)(5) do not apply.

VI. WORK PRACTICE REQUIREMENTS.**# 022 [25 Pa. Code §123.46]****Monitoring requirements**

The continuous monitors shall be operated and maintained in accordance with DEP's most recent version of the Continuous Source Monitoring Manual.

023 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The permittee shall operate and maintain the source and the following air-cleaning devices in accordance with manufacturers' specifications as well as good air pollution control practices:

- (a) The wet gas scrubber (Source ID C101-4) to control the emissions of sulfur dioxide (SO₂) and particulate matter (PM).
- (b) The enhanced selective non-catalytic reduction (SNCR) system (Source ID C101-3) to control the emissions of nitrogen oxides (NO_x).
- (c) CO Boiler (Source ID C01).
- (d) Research Cottrell ESP (Source ID C02).

024 [25 Pa. Code §129.201]**Boilers**

(a) Each year, the permittee shall calculate the difference between the actual emissions from the CO Boiler for the period from May 1 through September 30 and the allowable emissions for that period.

Note: Actual emissions are measured as the NO_x out of the CO Boiler minus the NO_x into the CO Boiler.

(b) The permittee shall calculate allowable emissions by multiplying the CO Boiler's cumulative heat input for the period by the emission rate of 0.17 pounds NO_x per million Btu heat input. Note: Heat input means the aggregate of heat generated from the conversion of CO => CO₂ and the heat generated from the burning of RFG/natural gas.

SECTION D. Source Level Requirements**# 025 [25 Pa. Code §129.204]****Emission accountability.**

(a) For the CO Boiler, the permittee shall surrender to the Department one NOx allowance, as defined in 25 Pa. Code § 145.2 (relating to definitions), for each ton of NOx by which the combined actual emissions exceed the allowable emissions of this source from May 1 through September 30. The surrendered NOx allowances shall be of current year vintage. For the purpose of determining the amount of allowances to surrender, any remaining fraction of a ton equal to or greater than 0.50 ton is deemed to equal 1 ton and any fraction of a ton less than 0.50 ton is deemed to equal zero tons.

(b) By November 1 of each year, the permittee shall surrender the required NOx allowances to the Department's designated NOx allowance tracking system account and provide to the Department, in writing, the following:

- (1) The serial number of each NOx allowance surrendered.
- (2) The calculations used to determine the quantity of NOx allowances required to be surrendered.

(c) If the permittee fails to comply with (b), above, the permittee shall by December 31 surrender three (3) NOx allowances of the current or later year vintage for each NOx allowance that was required to be surrendered by November 1 of that year.

(d) The surrender of NOx allowances under (c), above, does not affect the liability of the permittee of the unit for any fine, penalty or assessment, or an obligation to comply with any other remedy for the same violation, under the CAA or the act.

(1) For purposes of determining the number of days of violation, if a facility has excess emissions for the period May 1 through September 30, each day in that period (153 days) constitutes a day in violation unless the permittee demonstrates that a lesser number of days should be considered.

- (2) Each ton of excess emissions is a separate violation.

026 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1570]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my general requirements for complying with this subpart?**

The permittee shall always operate and maintain the source, including air pollution control and monitoring equipment, according to the provisions in 40 C.F.R. §63.6(e)(1)(i).

027 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1574]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What notifications must I submit and when?**

The permittee shall implement the operation, maintenance, and monitoring plan for each control system and continuous monitoring system for the source. The plan shall contain details of the operation, maintenance, and monitoring procedures.

(1) The permittee shall submit any changes to the Department for review and approval and comply with the plan until the change is approved.

(2) Each plan must include, at a minimum, the following information:

(i) Process and control device parameters to be monitored for each affected source, along with established operating limits.

(ii) Procedures for monitoring emissions and process and control device operating parameters for each affected source.

(iii) Procedures used to determine the coke burn-rate, the volumetric flow rate, and the rate of combustion of liquid fuels in CO Boiler (Source ID C01).

(iv) Procedures and analytical methods used to determine the equilibrium catalyst Ni concentration, the equilibrium catalyst Ni concentration monthly rolling average, and the hourly or hourly average Ni operating value.

SECTION D. Source Level Requirements

- (v) Procedures used to determine the pH of the water exiting the wet gas scrubber (Source ID C101-4).
- (vi) Procedures used to determine the gas flow rate for the source.
- (vii) Monitoring schedule, including when to and not to monitor the source.
- (viii) Quality control plan for each continuous monitoring system used to meet an emission limit. The plan must include procedures used for calibrations, accuracy audits, and adjustments to the system needed to meet applicable requirements for the system.
- (ix) Maintain schedule for each monitoring system and control device for each affected source that is generally consistent with the manufacturer's instructions for routine and long-term maintenance.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

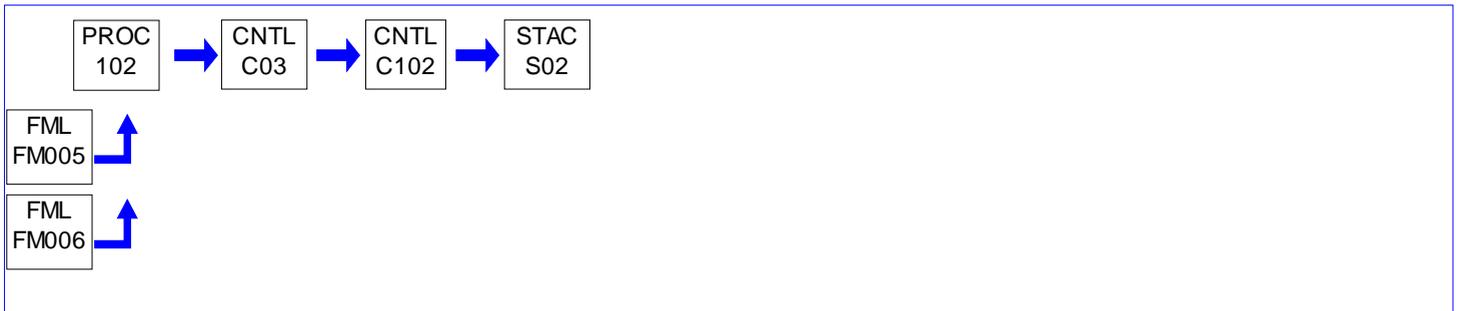
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 102

Source Name: CLAUS SULFUR RECOV. PLT.

Source Capacity/Throughput:	3.700 Tons/HR	LIQUID SULFUR
	4.000 MCF/HR	FUEL GAS

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

Particulate matter emissions from this source shall not exceed 0.04 gr/dscf.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this permit condition is also derived from Consent Decree (Civil Action H-05-258) and 40 C.F.R. Part 60 Subpart J and Part 63 Subpart UUU.]

The emissions of SO₂ shall not exceed 250 ppmvd, at 0% excess air on a 12-hour rolling average basis, as per 40 C.F.R. §§60.104(a)(2)(i), 60.105(a)(5), and Part 63 Subpart UUU Table 31.1.a.**# 003 [25 Pa. Code §129.13]****Sulfur recovery plants**(a) Sulfur dioxides (SO₂) emissions from this unit shall not exceed 0.036 pounds per pound of sulfur compounds, expressed as sulfur, in the feed gases, at any time.

(b) The above limit does not apply to fuel gases (natural gas and/or refinery fuel gas) fired for plant startup.

004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1570]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my general requirements for complying with this subpart?**

a. The permittee shall be in compliance with all of the non-opacity standards set forth in 40 C.F.R. 63 Subpart UUU. The non-opacity emission standards shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in 40 C.F.R. 63 Subpart UUU, then that emission point must still be required to comply with the non-opacity emission

b. The permittee shall be in compliance with the opacity and visible emission limits. The opacity and visible emission standards set forth in 40 C.F.R. 63 Subpart UUU must apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the opacity and visible emission standards set forth in 40 C.F.R. 63 Subpart UUU, then that emission point shall still be required to comply with the opacity and visible emission standards and other applicable requirements.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.****# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1571]****Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****How and when do I conduct a performance test or other initial compliance demonstration?**

- a. The permittee shall conduct performance tests in compliance with 40 C.F.R. §63.1571(b).
- b. The permittee shall use the procedures specified in 40 C.F.R. §63.1571(c) for any engineering assessment.
- c. The permittee shall comply with the applicable requirements specified in 40 C.F.R. §63.1571(d) to adjust the process or control device measured values when establishing an operating limit.
- d. The permittee shall comply with the applicable requirements specified in 40 C.F.R. §63.1571(e)(1) through (3) to change the established operating limit.

III. MONITORING REQUIREMENTS.**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for the permit conditions are also derived from Consent Decree (Civil Action H-05-258) and/or 25 Pa. Code § 127.511.]

(a) The permittee shall monitor the following for this source:

(1) On a daily basis, the exhaust volume rate and SO₂ concentration in the stack (Source ID S02) to determine the actual emissions of sulfur oxides, expressed as SO₂.

(2) The amount and type of fuel consumed by the incinerator (Source ID C102) on a monthly basis.

(b) The permittee shall comply with all applicable monitoring and recording requirements in accordance with 40 C.F.R. 60, Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU.

(c) The permittee shall operate and maintain continuous emissions monitors for SO₂ and O₂ in accordance with 40 C.F.R. §60.105(a)(5) and §63.1572.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

The permittee shall calibrate, maintain, and operate continuous monitoring and recording systems to continuously monitor and record the concentration (dry basis, zero percent excess air) of SO₂ emissions into the atmosphere. The monitor shall include an O₂ monitor for correcting the data for excess air.

IV. RECORDKEEPING REQUIREMENTS.**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain records of the following for this source [Additional authority for this permit condition is also derived from 25 Pa. Code § 127.511]:

(1) The allowable emission rate of SO₂.

(2) The actual emission rate of SO₂.

(3) The amount of fuel gas consumed by the incinerator (Source ID C102) on a monthly basis.

(b) The permittee shall comply with the applicable recordkeeping requirements set forth in 40 C.F.R. 60, Subparts A and J, and 40 C.F.R. 63, Subpart A and §63.1576. [Additional authority for this permit condition is also derived from Consent Decree (Civil Action H-05-258).]

**SECTION D. Source Level Requirements**

- (1) The permittee shall keep a current copy of the operation, maintenance, and monitoring plan onsite and available for inspection. The permittee shall keep records to show continuous compliance with the procedures in the operation, maintenance, and monitoring plan as per 40 C.F.R. §63.1576(e).
- (2) The records shall be in a form suitable and readily available for expeditious review according to 40 C.F.R. §63.10(b)(i) and §63.1576(g).
- (3) The permittee shall keep the records for 5 years, and keep the records on site for at least 2 years according to 40 C.F.R. §63.10(b)(1) and §§63.1576(h) and (i).

V. REPORTING REQUIREMENTS.**# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for the permit conditions are also derived from Consent Decree (Civil Action H-05-258), and 40 C.F.R. Part 60 Subpart J and Part 63 Subpart UUU.]

- (a) The permittee shall comply with the applicable reporting requirements set forth in 40 C.F.R. 60, Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU.
- (b) The permittee shall submit all the applicable notifications and reports in accordance with 40 C.F.R. §63.1574 and §63.1575.
- (c) The permittee shall report each instance in which the emission limitations and operating limit are not met as per 40 C.F.R. §63.1570(f).

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

For the purpose of reports under 40 C.F.R. §60.7(c), periods of excess emissions that shall be determined and reported are all 12-hour periods during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system under §60.105(a)(5) exceeds 250 ppm (dry basis, zero percent excess air).

011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1570]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my general requirements for complying with this subpart?**

The permittee shall report each instance in which each emission limitation and each operating limit was not met. This includes periods of startup, shutdown, and malfunction. The permittee shall report each instance in which the applicable work practice standards were not met. These instances are deviations from the emission limitations and work practice standards in this subpart. These deviations must be reported according to the requirements in 40 C.F.R. §63.1575.

012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1575]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What reports must I submit and when?**

- (a) The permittee shall submit each report required in Table 43 of 40 C.F.R. Part 63 Subpart UUU.
- (b) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
- (c) The compliance report must contain the information required below:
- (1) Company name and address.

**SECTION D. Source Level Requirements**

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If there are no deviations from any emission limitation that applies to the permittee and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations or work practice standards during the reporting period and that no continuous emission monitoring system or continuous opacity monitoring system was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.

(d) For each deviation from an emission limitation and for each deviation from the requirements for work practice standards that occurs at an affected source where the permittee are not using a continuous opacity monitoring system or a continuous emission monitoring system to comply with the emission limitation or work practice standard in this subpart, the compliance report must contain the information in paragraphs (c)(1) through (3) above and the information in paragraphs (d)(1) through (3) below.

(1) The total operating time of each affected source during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(3) Information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks).

(e) For each deviation from an emission limitation occurring at an affected source using a continuous emission monitoring system to comply with the emission limitation, the permittee must include the information in paragraphs (d)(1) through (3) above and the information in paragraphs (e)(1) through (13) below.

(1) The date and time that each malfunction started and stopped.

(2) The date and time that each continuous opacity monitoring system or continuous emission monitoring system was inoperative, except for zero (low-level) and high-level checks.

(3) The date and time that each continuous opacity monitoring system or continuous emission monitoring system was out-of-control, including the information in 40 C.F.R. §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging period specified in the regulation for other types of emission limitations), and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period and into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging time specified in the regulation for other types of standards), and the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system as a percent of the total source operating time during that reporting period.

(8) A breakdown of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.

(9) An identification of each HAP that was monitored at the affected source.

(10) A brief description of the process units.

(11) The monitoring equipment manufacturer(s) and model number(s).

(12) The date of the latest certification or audit for the continuous opacity monitoring system or continuous emission monitoring system.

(13) A description of any change in the continuous emission monitoring system or continuous opacity monitoring system, processes, or controls since the last reporting period.

(f) The permittee also must include the information required in paragraphs (f)(1) through (2) below in each compliance report, if applicable.

SECTION D. Source Level Requirements

(1) A copy of any performance test done during the reporting period on any affected unit. The report may be included in the next semiannual report. The copy must include a complete report for each test method used for a particular kind of emission point tested. For additional tests performed for a similar emission point using the same method, the permittee must submit the results and any other information required, but a complete test report is not required. A complete test report contains a brief process description; a simplified flow diagram showing affected processes, control equipment, and sampling point locations; sampling site data; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; documentation of calculations; and any other information required by the test method.

(2) Any requested change in the applicability of an emission standard (e.g., the permittee want to change from the PM standard to the Ni standard for catalytic cracking units or from the HCl concentration standard to percent reduction for catalytic reforming units) in the periodic report. The permittee must include all information and data necessary to demonstrate compliance with the new emission standard selected and any other associated requirements.

(g) The permittee may submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.

(h) The reporting requirements in paragraphs (h)(1) and (2) below apply to startups, shutdowns, and malfunctions:

(1) When actions taken to respond are consistent with the plan, the permittee are not required to report these events in the semiannual compliance report and the reporting requirements in 40 C.F.R. §§63.6(e)(3)(iii) and 63.10(d)(5) do not apply.

(2) When actions taken to respond are not consistent with the plan, the permittee must report these events and the response taken in the semiannual compliance report. In this case, the reporting requirements in 40 C.F.R. §§63.6(e)(3)(iv) and 63.10(d)(5) do not apply.

VI. WORK PRACTICE REQUIREMENTS.**# 013 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall ensure, that the Scot Tail Gas Treater (Source ID C03) and incinerator (Source ID C102), which are both part of the Sulfur Recovery Unit, be maintained and operated in accordance with manufacturers' specifications and in accordance with good air pollution control practices. [Additional authority for this permit condition is also derived from 25 Pa. Code § 129.93.]

(b) [Additional authority for this permit condition is also derived from Consent Decree (Civil Action H-05-258).]

(1) The permittee shall comply with the applicable work practice standard requirements set forth in 40 C.F.R. 60, Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU.

(2) The permittee shall prepare an operation, maintenance, and monitoring plan according to the requirements in 40 C.F.R. §63.1574(f), and operate at all times according to the procedures in the plan as per 40 C.F.R. §63.1568(a)(3).

(3) The permittee shall demonstrate continuous compliance with the emission limitation in accordance with the methods specified in Tables 34 and 35 of 40 C.F.R. Part 63 Subpart UUU.

(4) The permittee shall comply with the requirements for HAP emissions from bypass lines in accordance with 40 C.F.R. §63.1569.

(5) The permittee shall demonstrate continuous compliance with the work practice standard required in 40 C.F.R. §63.1568(a)(3) by complying with the procedures in the operation maintenance, and monitoring plan, as per 40 C.F.R. §63.1568(c).

**SECTION D. Source Level Requirements****# 014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1570]****Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my general requirements for complying with this subpart?**

The permittee shall always operate and maintain the source, including air pollution control and monitoring equipment, according to the provisions in 40 C.F.R. §63.6(e)(1)(i).

015 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1574]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What notifications must I submit and when?**

The permittee shall implement the operation, maintenance, and monitoring plan for each control system and continuous monitoring system for the source. The plan shall contain details of the operation, maintenance, and monitoring procedures.

(1) The permittee shall submit any changes to the Department for review and approval and comply with the plan until the change is approved.

(2) Each plan must include, at a minimum, the following information:

(i) Process and control device parameters to be monitored for each affected source, along with established operating limits.

(ii) Procedures for monitoring emissions and process and control device operating parameters for each affected source.

(iii) Procedures used to determine the coke burn-rate, the volumetric flow rate, and the rate of combustion of liquid fuels in CO Boiler (Source ID C01).

(iv) Procedures and analytical methods used to determine the equilibrium catalyst Ni concentration, the equilibrium catalyst Ni concentration monthly rolling average, and the hourly or hourly average Ni operating value.

(v) Procedures used to determine the pH of the water exiting the wet gas scrubber (Source ID C101-4).

(vi) Procedures used to determine the gas flow rate for the source.

(vii) Monitoring schedule, including when to and not to monitor the source.

(viii) Quality control plan for each continuous monitoring system used to meet an emission limit. The plan must include procedures used for calibrations, accuracy audits, and adjustments to the system needed to meet applicable requirements for the system.

(ix) Maintain schedule for each monitoring system and control device for each affected source that is generally consistent with the manufacturer's instructions for routine and long-term maintenance.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

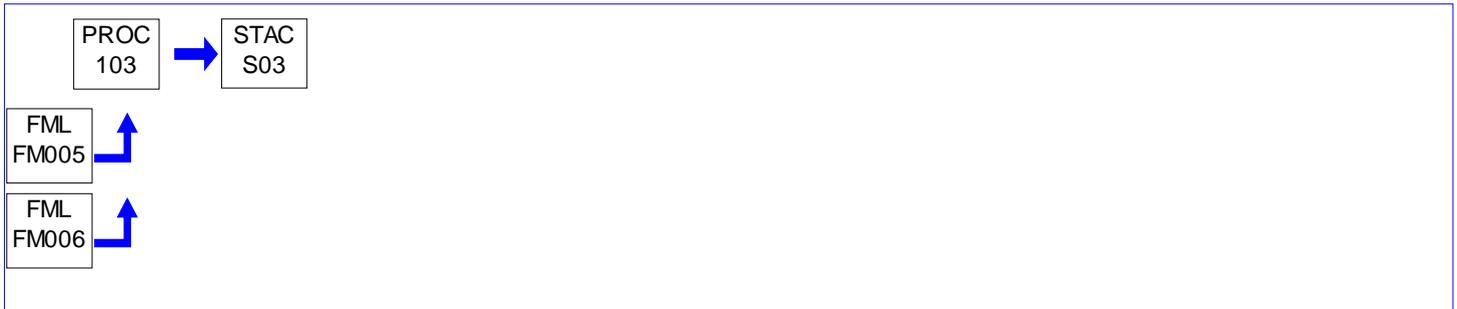
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 103

Source Name: MAIN FLARE

Source Capacity/Throughput:	1.000 BBL/HR	PETRO. LIQUIDS
	N/A	PROCESS GAS
	4.400 MMCF/HR	Natural Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee may not permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO₂, from this source in excess of the following:

- (1) 0.5 tons per day during normal operation..
- (2) 25.0 tons in any 12 consecutive month period.

(b)The permittee may not permit the emission into the outdoor atmosphere of nitrogen oxides (NO_x) from this source in excess of the following:

- (1) 1.3 tons per day during normal operation.
- (2) 69.0 tons in any 12 consecutive month period.

002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1566]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my requirements for organic HAP emissions from catalytic reforming units?**

The flare shall be operated with no visible emissions, except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hour period.

Fuel Restriction(s).**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Only natural gas shall be burned as pilot gas for this source.

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.103a]**SUBPART Ja - Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007****Work practice standards.**

The permittee shall not burn in any affected flare any fuel gas that contains H₂S in excess of 162 ppmv (0.10 gr/dscf) determined hourly on a 3-hour rolling average basis. The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this limit.

II. TESTING REQUIREMENTS.**# 005 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) EPA test method 22 in 40 C.F.R. 60, Appendix A, shall be used to determine the compliance of the flare with the visible

**SECTION D. Source Level Requirements**

emission limitations. The observation period is two (2) hours and shall be used according to EPA Method 22.

(b) The net heating value of the gas being combusted in a flare shall be calculated using the equation found in 40 C.F.R. § 63.11(b)(6).

(c) The actual flare exit velocity shall be determined by dividing the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by EPA test Methods 2, 2A, 2C, or 2D, in 40 C.F.R. 60, Appendix A, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104a]
SUBPART Ja - Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007
Performance tests.**

As per 40 C.F.R. §60.104a(j), the permittee shall determine compliance with the applicable H₂S emissions limit in the concentration requirement in 40 C.F.R. §60.103a(h) for the flare according to the following test methods and procedures:

- (1) Method 1 of appendix A-1 to part 60 for sample and velocity traverses;
- (2) Method 2 of appendix A-1 to part 60 for velocity and volumetric flow rate;
- (3) Method 3, 3A, or 3B of appendix A-2 to 40 C.F.R. Part 60 for gas analysis. The method ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see §60.17) is an acceptable alternative to EPA Method 3B of appendix A-2 to 40 C.F.R. Part 60;
- (4) EPA Method 11, 15 or 15A of Appendix A-5 to 40 C.F.R. Part 60 or EPA Method 16 of Appendix A-6 to 40 C.F.R. Part 60 for determining the H₂S concentration for affected facilities using an H₂S monitor as specified in 40 C.F.R. §60.107a(a)(2). The method ANSI/ASME PTC 19.10-1981 (incorporated by reference—see §60.17) is an acceptable alternative to EPA Method 15A of Appendix A-5 to 40 C.F.R. Part 60. The owner or operator may demonstrate compliance based on the mixture used in the flare or for each individual fuel gas stream used in the flare.
 - (i) For Method 11 of appendix A-5 to 40 C.F.R. Part 60, the sampling time and sample volume must be at least 10 minutes and 0.010 dscm (0.35 dscf). Two samples of equal sampling times must be taken at about 1-hour intervals. The arithmetic average of these two samples constitutes a run. For most fuel gases, sampling times exceeding 20 minutes may result in depletion of the collection solution, although fuel gases containing low concentrations of H₂S may necessitate sampling for longer periods of time.
 - (ii) For Method 15 of appendix A-5 to 40 C.F.R. Part 60, at least three injects over a 1-hour period constitutes a run.
 - (iii) For Method 15A of appendix A-5 to 40 C.F.R. Part 60, a 1-hour sample constitutes a run. The method ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see §60.17) is an acceptable alternative to EPA Method 15A of appendix A-5 to 40 C.F.R. Part 60.
 - (iv) If monitoring is conducted at a single point in a common source of fuel gas as allowed under 40 C.F.R. §60.107a(a)(2)(iv), only one performance test is required.

III. MONITORING REQUIREMENTS.

**# 007 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The presence of the flare pilot flame shall be monitored and recorded using a thermocouple or any other equivalent device that can detect the presence of a flame. When using any other equivalent device, the permittee shall submit to the Department a request for determination (RFD) for the change of such monitoring device. The Department will determine if new operating parameter(s), monitoring, recordkeeping, and reporting requirements in this permit need to be added or revised to accommodate the changes.

**SECTION D. Source Level Requirements****# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) The permittee shall monitor and record the process gas flow to the flare on a continuous basis.
- (b) The H₂S content of the process gas shall be monitored using a combination of engineering judgment and/or prior test data.

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107a]**SUBPART Ja - Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007****Monitoring of emissions and operations for fuel gas combustion devices and flares.**

- (a) As per 40 C.F.R. §60.107a(a)(2), the permittee shall install, operate, calibrate and maintain an instrument for continuously monitoring and recording the concentration by volume (dry basis) of H₂S in the fuel gases before being burned in the flare.
- (i) The permittee shall install, operate and maintain each H₂S monitor according to Performance Specification 7 of Appendix B to 40 C.F.R. Part 60. The span value for this instrument is 300 ppmv H₂S.
- (ii) The permittee shall conduct performance evaluations for each H₂S monitor according to the requirements of 40 C.F.R. §60.13(c) and Performance Specification 7 of appendix B to 40 C.F.R. Part 60. The permittee shall use Method 11, 15, or 15A of appendix A-5 to 40 C.F.R. Part 60 or Method 16 of appendix A-6 to 40 C.F.R. Part 60 for conducting the relative accuracy evaluations. The method ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see 40 C.F.R. §60.17) is an acceptable alternative to EPA Method 15A of appendix A-5 to 40 C.F.R. Part 60.
- (iii) The permittee shall comply with the applicable quality assurance procedures in appendix F to 40 C.F.R. Part 60 for each H₂S monitor.
- (iv) Flares having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned in the respective flares.
- (3) The permittee is not required to comply with 40 C.F.R. §60.107a(a)(2) for fuel gas streams that are exempt under 40 C.F.R. §60.103a(h) or, other flare that are inherently low in sulfur content.
- (4) If the composition of an exempt fuel gas stream changes, the permittee must follow the procedures in 40 C.F.R. §60.107a(b)(3).
- (b) As per 40 C.F.R. §60.107a(e) - Sulfur monitoring for assessing root cause analysis threshold for affected flares. The permittee shall determine the total reduced sulfur concentration for each gas line directed to the flare in accordance with 40 C.F.R. §60.107a(e)(2). Different options may be elected for different gas lines. If a monitoring system is in place that is capable of complying with the requirements related to 40 C.F.R. §60.107a(e)(2), the permittee must comply with the requirements related to 40 C.F.R. §60.107a(e)(2) upon startup of the modified flare. If a monitoring system is not in place that is capable of complying with the requirements related to 40 C.F.R. §60.107a(e)(2), the owner or operator of a modified flare must comply with the requirements related to 40 C.F.R. §60.107a(e)(2) no later than November 11, 2015.
- (c) 40 C.F.R. §60.107a(e)(2) - H₂S monitoring requirements. The permittee shall install, operate, calibrate, and maintain an instrument for continuously monitoring and recording the concentration of H₂S in gas discharged to the flare according to the requirements in 40 C.F.R. §60.107a(e)(2)(i) through (iii) and shall collect and analyze samples of the gas and calculate total sulfur concentrations as specified in 40 C.F.R. §60.107a(e)(2)(iv) through (ix).
- (i) The permittee shall install, operate and maintain each H₂S monitor according to Performance Specification 7 of Appendix B to 40 C.F.R. Part 60. The span value should be determined based on the maximum sulfur content of gas that can be discharged to the flare (e.g., roughly 1.1 to 1.3 times the maximum anticipated sulfur concentration), but may be no less than 5,000 ppmv. A single dual range H₂S monitor may be used to comply with the requirements of this paragraph and 40 C.F.R. §60.107a(a)(2) provided the applicable span specifications are met.

**SECTION D. Source Level Requirements**

- (ii) The permittee shall conduct performance evaluations of each H₂S monitor according to the requirements in 40 C.F.R. §60.13(c) and Performance Specification 7 of Appendix B to 40 C.F.R. Part 60. The permittee shall use EPA Method 11, 15 or 15A of Appendix A-5 to 40 C.F.R. Part 60 for conducting the relative accuracy evaluations. The method ANSI/ASME PTC 19.10-1981 (incorporated by reference—see 40 C.F.R. §60.17) is an acceptable alternative to EPA Method 15A of Appendix A-5 to 40 C.F.R. Part 60. The alternative relative accuracy procedures described in §16.0 of Performance Specification 2 of Appendix B to 40 C.F.R. Part 60 (cylinder gas audits) may be used for conducting the relative accuracy evaluations.
- (iii) The permittee shall comply with the applicable quality assurance procedures in Appendix F to 40 C.F.R. Part 60 for each H₂S monitor.
- (iv) In the first 10 operating days after the date the flare must begin to comply with 40 C.F.R. §60.103a(c)(1), the permittee shall collect representative daily samples of the gas discharged to the flare. The samples may be grab samples or integrated samples. The permittee shall take subsequent representative daily samples at least once per week or as required in 40 C.F.R. §60.107a(e)(2)(ix).
- (v) The permittee shall analyze each daily sample for total sulfur using either EPA Method 15A of Appendix A-5 to 40 C.F.R. Part 60, EPA Method 16A of Appendix A-6 to 40 C.F.R. Part 60, ASTM Method D4468-85 (Reapproved 2006) (incorporated by reference—see 40 C.F.R. §60.17) or ASTM Method D5504-08 (incorporated by reference—see 40 C.F.R. §60.17).
- (vi) The owner or operator permittee shall develop a 10-day average total sulfur-to-H₂S ratio and 95-percent confidence interval as follows:
- (A) Calculate the ratio of the total sulfur concentration to the H₂S concentration for each day during which samples are collected.
- (B) Determine the 10-day average total sulfur-to-H₂S ratio as the arithmetic average of the daily ratios calculated in 40 C.F.R. §60.107a(e)(2)(vi)(A).
- (C) Determine the acceptable range for subsequent weekly samples based on the 95-percent confidence interval for the distribution of daily ratios based on the 10 individual daily ratios using Equation 11 of 40 C.F.R. §60.107a.
- (vii) For each day during the period when data are being collected to develop a 10-day average, the permittee shall estimate the total sulfur concentration using the measured total sulfur concentration measured for that day.
- (viii) For all days other than those during which data are being collected to develop a 10-day average, the permittee shall multiply the most recent 10-day average total sulfur-to-H₂S ratio by the daily average H₂S concentrations obtained using the monitor as required by 40 C.F.R. §60.107a(e)(2)(i) through (iii) to estimate total sulfur concentrations.
- (ix) If the total sulfur-to-H₂S ratio for a subsequent weekly sample is outside the acceptable range for the most recent distribution of daily ratios, the permittee shall develop a new 10-day average ratio and acceptable range based on data for the outlying weekly sample plus data collected over the following 9 operating days.
- (d) 40 C.F.R. §60.107a(f) - Flow monitoring for flares. Except as provided in 40 C.F.R. §60.107a(f)(2), the permittee shall install, operate, calibrate and maintain, in accordance with the specifications in 40 C.F.R. §60.107a(f)(1), a CPMS to measure and record the flow rate of gas discharged to the flare.
- (1) The permittee shall install, calibrate, operate and maintain each flow monitor according to the manufacturer's procedures and specifications and the following requirements.
- (i) Locate the monitor in a position that provides a representative measurement of the total gas flow rate.
- (ii) Use a flow sensor with a measurement sensitivity of no more than 5 percent of the flow rate or 10 cubic feet per minute, whichever is greater.
- (iii) Use a flow monitor that is maintainable online, is able to continuously correct for temperature and pressure and is able to record flow in standard conditions (as defined in 40 C.F.R. §60.2) over one-minute averages.

**SECTION D. Source Level Requirements**

(iv) At least quarterly, perform a visual inspection of all components of the monitor for physical and operational integrity and all electrical connections for oxidation and galvanic corrosion if the flow monitor is not equipped with a redundant flow sensor.

(v) Recalibrate the flow monitor in accordance with the manufacturer's procedures and specifications biennially (every two years) or at the frequency specified by the manufacturer.

(2) Flares equipped with flare gas recovery systems designed, sized and operated to capture all flows except those resulting from startup, shutdown or malfunction are not required to install continuous flow monitors; provided, however, that for any such flare, the owner or operator shall comply with the monitoring alternative in 40 C.F.R. §60.107a(g).

(e) 40 C.F.R. §60.107a(i) - Excess emissions. For the purpose of reports required by 40 C.F.R. §60.7(c), periods of excess emissions for flares subject to the concentration requirement in 40 C.F.R. §60.103a(h) are defined as specified in 40 C.F.R. §60.107a(i)(2). Determine a rolling 3-hour or a rolling daily average as the arithmetic average of the applicable 1-hour averages (e.g., a rolling 3-hour average is the arithmetic average of three contiguous 1-hour averages).

(f) 40 C.F.R. §60.107a(i)(2) - H₂S concentration limits for flares: Each rolling 3-hour period during which the average concentration of H₂S as measured by the H₂S continuous monitoring system required under 40 C.F.R. §60.107a(a)(2) exceeds 162 ppmv (0.10 gr/dscf).

IV. RECORDKEEPING REQUIREMENTS.**# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.511]

(a) The permittee shall maintain records of the following operating parameters for this source:

- (1) The amount and type of fuel gas consumed on a monthly basis.
- (2) The amount of process gas combusted on a monthly basis.
- (3) The H₂S content of the fuel consumed and waste gas combusted.
- (4) The Btu content of the fuel combusted.
- (5) The presence of a flare pilot flame shall be continuously recorded using a thermocouple or other equivalent device approved by the Department. If the pilot flame is not present for any reason, the permittee shall keep records of the absence of the flame, including the reason, duration and any corrective action.

(b) The permittee shall record the following:

- (1) Quantity of process gas to the flare on a daily basis.
- (2) The H₂S content of the process gas, using a Department approved method.

(c) During flaring incidents the permittee shall record the following information:

- (1) Date,
- (2) Time,
- (3) Duration,
- (4) Flow rate of gases sent to the flare,
- (5) H₂S concentration,
- (6) Amount of pollutants emitted, and
- (7) Cause of any flaring incident.

(d) Sufficient calculations shall be performed to demonstrate compliance with the emission limits for this source.

011 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

The following records shall be kept:

**SECTION D. Source Level Requirements**

- (a) Net heating value of the gas.
- (b) Velocity tip determination.

**# 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.108a]
SUBPART Ja - Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007
Recordkeeping and reporting requirements.**

The permittee shall maintain the following records:

- (1) A copy of the flare management plan.
- (2) For each fuel gas stream to which one of the exemptions listed in 40 C.F.R. §60.107a(a)(3) applies, records of the specific exemption determined to apply for each fuel stream. If the permittee applies for the exemption described in 40 C.F.R. §60.107a(a)(3)(iv), the permittee must keep a copy of the application as well as the letter from DEP granting approval of the application.
- (3) Records of discharges to an affected flare in excess of 500,000 scf above baseline in any 24-hour period as required by 40 C.F.R. §60.103a(c).
- (4) Records of the H₂S and total sulfur analyses of each grab or integrated sample, the calculated daily total sulfur-to-H₂S ratios, the calculated 10-day average total sulfur-to-H₂S ratios and the 95-percent confidence intervals for each 10-day average total sulfur-to-H₂S ratio.

V. REPORTING REQUIREMENTS.

**# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.108a]
SUBPART Ja - Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007
Recordkeeping and reporting requirements.**

As per 40 C.F.R. §60.108a(d), the permittee shall submit an excess emissions report on a quarterly basis for all periods of excess emissions according to the requirements of 40 C.F.R. §60.7(c) except that the report shall contain the information specified in 40 C.F.R. §60.108a(d)(1) through (7).

- (1) The date that the exceedance occurred;
- (2) An explanation of the exceedance;
- (3) Whether the exceedance was concurrent with a startup, shutdown, or malfunction of an affected facility or control system; and
- (4) A description of the action taken, if any.
- (5) The information described in 40 C.F.R. §60.108a(c)(6) for all discharges listed in 40 C.F.R. §60.108a(c)(6).
- (6) For any periods for which monitoring data are not available, any changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.
- (7) A written statement, signed by a responsible official, certifying the accuracy and completeness of the information contained in the report.

**SECTION D. Source Level Requirements****VI. WORK PRACTICE REQUIREMENTS.****# 014 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall operate and maintain the process gas flow meters in accordance with manufacturer's specifications.

015 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The flare shall be operated with a flame present at all times.

(b) The flare shall be used only with the net heating value of the gas being combusted at 300 Btu/scf, or greater (for steam assisted flares).

(c) The flare shall be designed for and operated with an exit velocity less than 60 ft/sec, except as provided in the following paragraphs:

(1) Flares operated with an exit velocity greater than or equal to 60 ft/sec, but less than 400 ft/sec are allowed if the net heating value of the gas being combusted is greater than 1000 Btu/scf.

(2) Flares operated with an exit velocity, as determined by the methods specified in 40 C.F.R. § 63.11(b)(7)(i), less the velocity V_{max} , as determined by the method specified in 40 C.F.R. § 63.11(b)(7)(iii), and less than 400 ft/sec are allowed.

016 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.103a]**SUBPART Ja - Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007****Work practice standards.**

(a) The permittee shall develop and implement a written flare management plan no later than November 11, 2015. The flare management plan must include the information described below.

(1) A listing of all refinery process units, ancillary equipment, and fuel gas systems connected to the flare.

(2) An assessment of whether discharges to the flare from the process units, ancillary equipment and fuel gas systems can be minimized. The flare minimization assessment must (at a minimum) consider the items in 40 C.F.R. §60.103a(a)(2)(i) through (iv). The assessment must provide clear rationale in terms of costs (capital and annual operating), natural gas offset credits (if applicable), technical feasibility, secondary environmental impacts and safety considerations for the selected minimization alternative(s) or a statement, with justifications, that flow reduction could not be achieved. Based upon the assessment, the permittee shall identify the minimization alternatives that it has implemented by the due date of the flare management plan and shall include a schedule for the prompt implementation of any selected measures that cannot reasonably be completed as of that date.

(i) Elimination of process gas discharge to the flare through process operating changes or gas recovery at the source.

(ii) Reduction of the volume of process gas to the flare through process operating changes.

(iii) Installation of a flare gas recovery system or, a flare gas recovery system and a co-generation unit, or combined heat and power unit.

(iv) Minimization of sweep gas flow rates and, for the flare with water seals, purge gas flow rates.

(3) A description of the flare containing the information in 40 C.F.R. §60.103a(a)(3)(i) through (vii).

(i) A general description of the flare, including the information in 40 C.F.R. §60.103a(a)(3)(i)(A) through (G).

(A) Whether it is a ground flare or elevated (including height).

(B) The type of assist system (e.g., air, steam, pressure, non-assisted).

(C) Whether it is simple or complex flare tip (e.g., staged, sequential).

**SECTION D. Source Level Requirements**

- (D) Whether the flare is part of a cascaded flare system (and if so, whether the flare is primary or secondary).
- (E) Whether the flare serves as a backup to another flare.
- (F) Whether the flare is an emergency flare or a non-emergency flare.
- (G) Whether the flare is equipped with a flare gas recovery system.
- (ii) Description and simple process flow diagram showing the interconnection of the following components of the flare: flare tip (date installed, manufacturer, nominal and effective tip diameter, tip drawing); knockout or surge drum(s) or pot(s) (including dimensions and design capacities); flare header(s) and subheader(s); assist system; and ignition system.
- (iii) Flare design parameters, including the maximum vent gas flow rate; minimum sweep gas flow rate; minimum purge gas flow rate (if any); maximum supplemental gas flow rate; maximum pilot gas flow rate; and, if the flare is steam-assisted, minimum total steam rate.
- (iv) Description and simple process flow diagram showing all gas lines (including flare, purge (if applicable), sweep, supplemental and pilot gas) that are associated with the flare. For purge, sweep, supplemental and pilot gas, identify the type of gas used. Designate which lines are exempt from sulfur, H₂S or flow monitoring and why (e.g., natural gas, inherently low sulfur, pilot gas). Designate which lines are monitored and identify on the process flow diagram the location and type of each monitor.
- (v) For each flow rate, H₂S, sulfur content, pressure or water seal monitor identified in 40 C.F.R. §60.103a(a)(3)(iv), provide a detailed description of the manufacturer's specifications, including, but not limited to, make, model, type, range, precision, accuracy, calibration, maintenance and quality assurance procedures.
- (vi) For emergency flares, secondary flares and flares equipped with a flare gas recovery system designed, sized and operated to capture all flows except those resulting from startup, shutdown or malfunction:
- (A) Description of the water seal, including the operating range for the liquid level.
- (B) Designation of the monitoring option elected (flow and sulfur monitoring or pressure and water seal liquid level monitoring).
- (vii) For the flare gas recovery system:
- (A) A description of the flare gas recovery system, including number of compressors and capacity of each compressor.
- (B) A description of the monitoring parameters used to quantify the amount of flare gas recovered.
- (C) For systems with staged compressors, the maximum time period required to begin gas recovery with the secondary compressor(s), the monitoring parameters and procedures used to minimize the duration of releases during compressor staging and a justification for why the maximum time period cannot be further reduced.
- (4) An evaluation of the baseline flow to the flare. The baseline flow to the flare must be determined after implementing the minimization assessment in 40 C.F.R. §60.103a(a)(2). Baseline flows do not include pilot gas flow or purge gas flow (i.e., gas introduced after the flare's water seal) provided these gas flows remain reasonably constant (i.e., separate flow monitors for these streams are not required). Separate baseline flow rates may be established for different operating conditions provided that the management plan includes:
- (i) A primary baseline flow rate that will be used as the default baseline for all conditions except those specifically delineated in the plan;
- (ii) A description of each special condition for which an alternate baseline is established, including the rationale for each alternate baseline, the daily flow for each alternate baseline and the expected duration of the special conditions for each alternate baseline; and

**SECTION D. Source Level Requirements**

- (iii) Procedures to minimize discharges to the affected flare during each special condition described in 40 C.F.R. §60.103a(a)(4)(ii), unless procedures are already developed for these cases under 40 C.F.R. §60.103a(a)(5) through (7), as applicable.
- (5) Procedures to minimize or eliminate discharges to the flare during the planned startup and shutdown of the refinery process units and ancillary equipment that are connected to the affected flare, together with a schedule for the prompt implementation of any procedures that cannot reasonably be implemented as of the date of the submission of the flare management plan.
- (6) Procedures to reduce flaring in cases of fuel gas imbalance (i.e., excess fuel gas for the refinery's energy needs), together with a schedule for the prompt implementation of any procedures that cannot reasonably be implemented as of the date of the submission of the flare management plan.
- (7) For flare gas recovery systems, procedures to minimize the frequency and duration of outages of the flare gas recovery system and procedures to minimize the volume of gas flared during such outages, together with a schedule for the prompt implementation of any procedures that cannot reasonably be implemented as of the date of the submission of the flare management plan.
- (b) The permittee must submit the plan to DEP as described in 40 C.F.R. §60.103a(b)(1) through (3).
- (1) The permittee must develop and implement the flare management plan by no later than November 11, 2015.
- (2) The permittee must comply with the plan as submitted by November 11, 2015. The plan should be updated periodically to account for changes in the operation of the flare, such as new connections to the flare or the installation of a flare gas recovery system, but the plan need be re-submitted to DEP only if the owner or operator adds an alternative baseline flow rate, revises an existing baseline as described in 40 C.F.R. §60.103a(a)(4), installs a flare gas recovery system or is required to change flare designations and monitoring methods as described in 40 C.F.R. §60.107a(g). The permittee must comply with the updated plan as submitted.
- (3) All versions of the plan submitted to DEP shall also be submitted to the following address: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, U.S. EPA Mailroom (E143-01), Attention: Refinery Sector Lead, 109 T.W. Alexander Drive, Research Triangle Park, NC 27711. Electronic copies in lieu of hard copies may also be submitted to refinerynps@epa.gov.
- (c) Except as provided in 40 C.F.R. §60.103a(f), the permittee shall conduct a root cause analysis and a corrective action analysis for any discharge to the flare in excess of 14,160 standard cubic meters (m³) (500,000 standard cubic feet (scf)) above the baseline, determined in 40 C.F.R. §60.103a(a)(4), in any 24-hour period.
- (d) Except as provided in 40 C.F.R. §60.103a(f), a root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a discharge meeting one of the conditions specified in 40 C.F.R. §60.103a(c)(1). Special circumstances affecting the number of root cause analyses and/or corrective action analyses are provided in 40 C.F.R. §60.103a(d)(1) through (5).
- (1) If a single continuous discharge meets any of the conditions specified in 40 C.F.R. §60.103a(c)(1) through (3) for 2 or more consecutive 24-hour periods, a single root cause analysis and corrective action analysis may be conducted.
- (2) If a single discharge from the flare triggers a root cause analysis based on the conditions specified in 40 C.F.R. §60.103a(c), a single root cause analysis and corrective action analysis may be conducted.
- (3) If the discharge from the flare is the result of a planned startup or shutdown of a refinery process unit or ancillary equipment connected to the flare and the procedures in 40 C.F.R. §60.103a(a)(5) were followed, a root cause analysis and corrective action analysis is not required; however, the discharge must be recorded as described in 40 C.F.R. §60.108a(c)(6) and reported as described in 40 C.F.R. §60.108a(d)(5).
- (5) If discharges occur that meet any of the conditions specified in 40 C.F.R. §60.103a(c)(1) for more than one affected facility in the same 24-hour period, initial root cause analyses shall be conducted for each affected facility. If the initial root

**SECTION D. Source Level Requirements**

cause analyses indicate that the discharges have the same root cause(s), the initial root cause analyses can be recorded as a single root cause analysis and a single corrective action analysis may be conducted.

(e) Except as provided in paragraph (f) of this section, the permittee shall implement the corrective action(s) identified in the corrective action analysis conducted pursuant to paragraph (d) of this section in accordance with the applicable requirements in 40 C.F.R. §60.103a(e)(1) through (3).

(1) All corrective action(s) must be implemented within 45 days of the discharge for which the root cause and corrective action analyses were required or as soon thereafter as practicable. If an owner or operator concludes that corrective action should not be conducted, the owner or operator shall record and explain the basis for that conclusion no later than 45 days following the discharge as specified in 40 C.F.R. §60.108a(c)(6)(ix).

(2) For corrective actions that cannot be fully implemented within 45 days following the discharge for which the root cause and corrective action analyses were required, the owner or operator shall develop an implementation schedule to complete the corrective action(s) as soon as practicable.

(3) No later than 45 days following the discharge for which a root cause and corrective action analyses were required, the permittee shall record the corrective action(s) completed to date, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates as specified in 40 C.F.R. §60.108a(c)(6)(x).

(f) Modified flares shall comply with the requirements of 40 C.F.R. §60.103a(c) through (e) by November 11, 2015. This modified flare, accepted applicability of subpart J under a federal consent decree, shall comply with the subpart J requirements as specified in the consent decree, but shall comply with the requirements of 40 C.F.R. §60.103a(h) and the requirements of 40 C.F.R. §60.107a(a)(2) by no later than November 11, 2015.

017 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1566]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my requirements for organic HAP emissions from catalytic reforming units?**

The flare pilot light must be present at all times and the flare must be operating at all times that emissions may be vented to it.

VII. ADDITIONAL REQUIREMENTS.**# 018 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The following sources shall be controlled by the Main Flare (Source ID 103) and backed up by the Back-Up Flare (Source ID 122):

Source ID	Source Name
114	RACT Fugitive Equipment (except fugitive emissions not required to be captured for control)
115	NSPS Fugitive Equipment (except fugitive emissions not required to be captured for control)
118	Railcar Loading LPG & Butane
128	MACT Fugitive Equipment (except fugitive emissions not required to be captured for control)
210	Miscellaneous Process Vents
215	NSPS New Fugitive Equipment (except fugitive emissions not required to be captured for control)
501	Spheroid 501
502	Spheroid 502
513	Spheroid 513
T006	MACT Group 1 Tanks routed to Closed Vent System

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

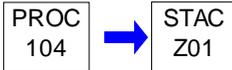
Source ID: 104

Source Name: MARINE VESSEL BALLASTING

Source Capacity/Throughput:

8.500 Th BBL/HR

CRUDE OIL

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §129.81]****Organic liquid cargo vessel loading and ballasting**

(a) Other provisions of this section notwithstanding, DEP may allow the permittee to implement permanent and enforceable measures, including recordkeeping and reporting requirements, which are approved by the EPA to reduce the emission of VOCs from ballasting of an organic liquid cargo vessel containing crude oil or gasoline as follows:

98% of the total volume of receipts of crude oil and gasoline during each calendar year shall be delivered to the facility in vessels which do not ballast, such as barges, or in vessels which do not emit VOCs when ballasted, such as tankers using segregated ballast tanks.

(b) Compliance with (a), above, may also be achieved by meeting the requirements for equivalency in 25 Pa. Code § 129.51(a) (relating to general).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.**# 002 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall record the following information for each receipt of crude or gasoline at the facility:

- (a) Date of each shipment.
- (b) Cargo type and amount.
- (c) Whether or not the vessel has segregated ballast tanks or clean ballast tanks.
- (d) For each calendar year, calculate the percent of the total volume of receipts of crude oil and gasoline delivered to the facility in vessels which do not ballast or do not emit VOCs when ballasted.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).



SECTION D. Source Level Requirements

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

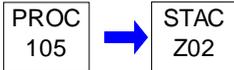
***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: 105

Source Name: MARINE VESSEL LOADING

Source Capacity/Throughput: 108.600 Th Gal/HR GASOLINE

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall comply with all applicable requirements specified in 40 C.F.R. Part 63 Subpart Y - National Emissions Standards for Marine Tank Vessel Loading Operations, if the following emission limits are exceeded:

- (a) An individual HAP emissions from this source shall not be equal to or greater than 10 tons per year annually, and/or
- (b) The combined HAP emissions from this source shall not be equal to or greater than 25 tons per year annually.

Throughput Restriction(s).**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.560]****Subpart Y - National Emission Standards for Marine Tank Vessel Tank Loading Operations****Applicability and designation of affected source.**

The marine vessel loading shall be limited to less than 10 million barrels gasoline, or 200 million barrels crude oil per year on a 24-month annual average basis. In the event that the loading throughput increases above the 10-million or 200 million threshold, the permittee shall comply with the applicable requirements of 40 C.F.R. 63 Subpart Y no later than 3 years after exceeding the thresholds.

Control Device Efficiencies Restriction(s).**# 003 [25 Pa. Code §129.81]****Organic liquid cargo vessel loading and ballasting**

The following shall exist while loading of all petroleum distillates, which is a liquid with RVP greater than or equal to 4psi at standard temperature and pressure, into an organic liquid cargo vessel:

- (a) The VOC vapors displaced by the loading operation are processed through a vapor recovery device operated to reduce the VOCs by at least 90% by weight.
- (b) The vapor collection and transport system employed to carry VOCs to the vapor control system is maintained and operated so that it prevents the following:
 - (1) A reading equal to or greater than 100% of the lower explosive limit (LEL), measured as propane, at 1 inch (2.5 centimeters) from all points on the perimeter of a potential leak source when measured by the method referenced in 25 Pa. Code Section 139.14 (relating to emissions of VOCs) during loading operations.
 - (2) Avoidable liquid leaks during loading operations.
 - (3) Visually or audibly detectable leaks in the organic liquid cargo vessel's cargo tanks, hatch covers, storage tanks pressure/vacuum relief valves and associated vapor and liquid lines during loading.
- (c) The pressure and vacuum relief valves on the liquid cargo vessel are set to release at no less than 0.7 psig of pressure or 0.3 psig of vacuum or the highest allowable pressure and vacuum as specified in State or local fire codes, the National Fire Prevention Association guidelines or other National consensus standards acceptable to the Department.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

**# 004 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The permittee shall notify the Department, within 10 days, the throughput and/or emission limit exceedance specified in Emission Restrictions of this section.

VI. WORK PRACTICE REQUIREMENTS.

**# 005 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The captured VOC vapors shall be routed to the refinery fuel gas system.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

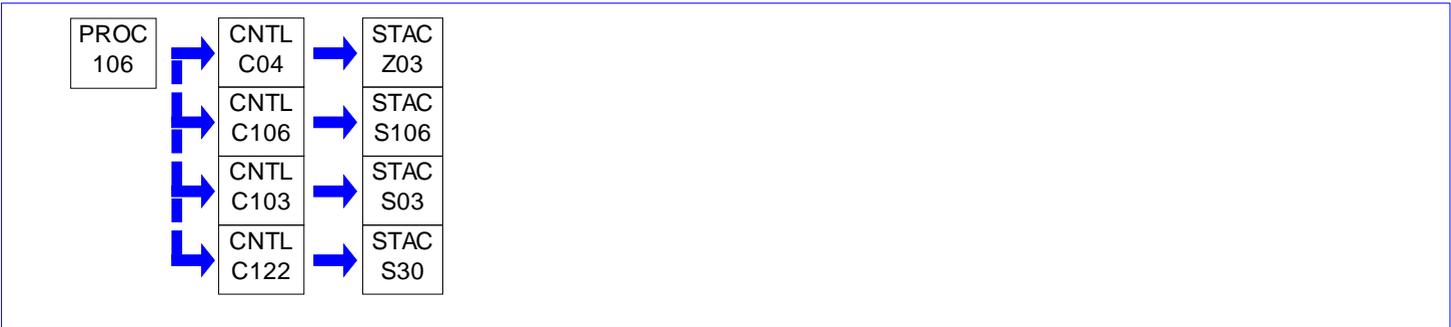
***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: 106

Source Name: PROCESS DRAINS & H2O SEP.

Source Capacity/Throughput: 7,710.000 BBL/HR WASTEWATER



I. RESTRICTIONS.

Control Device Efficiencies Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The carbon canisters shall be replaced with fresh carbon when the carbon canister exhaust VOC concentrations monitored reach 500ppm above background levels.

II. TESTING REQUIREMENTS.

002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.696]

Subpart QQQ - Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems Performance test methods and procedures and compliance provisions.

Whenever sources subject to 40 C.F.R. 60 Subpart QQQ that have ceased to treat refinery wastewater for a period of 1 year or more are placed back into service, the owner or operator shall determine compliance with the standards in 60.693-2(a) as follows:

(1) The maximum gap widths and maximum gap areas between the primary seal and the separator wall and between the secondary seal and the separator wall shall be determined individually within 60 calendar days of the initial installation of the floating roof and introduction of refinery wastewater or 60 calendar days after the equipment is placed back into service using the following procedure when the separator is filled to the design operating level and when the roof is floating off the roof supports.

(i) Measure seal gaps around the entire perimeter of the separator in each place where a 0.32 cm (0.125 in.) diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the separator and measure the gap width and perimetrical distance of each such location.

(ii) The total surface area of each gap described in (d)(1)(i) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the wall to the seal and multiplying each such width by its respective perimetrical distance.

(iii) Add the gap surface area of each gap location for the primary seal and the secondary seal individually, divide the sum for each seal by the nominal perimeter of the separator basin and compare each to the maximum gap area as specified in 60.693-2.

(2) The gap widths and total gap area shall be determined using the procedure in paragraph (d)(1) of this section according to the following frequency:

(i) For primary seals, once every 5 years.

(ii) For secondary seals, once every year.

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.****# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.695]
Subpart QQQ - Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems
Monitoring of operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system shall be monitored on a regular schedule, and the existing carbon shall be replaced with fresh carbon immediately (within 24 hours) when carbon breakthrough is indicated. The device shall be monitored on a daily basis or at intervals no greater than 20% of the design carbon replacement interval, whichever is greater. As an alternative to conducting this monitoring, the permittee may replace the carbon in the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and either the organic concentration or the benzene concentration in the gas stream vented to the carbon adsorption system.

IV. RECORDKEEPING REQUIREMENTS.**# 004 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The permittee shall maintain records of the carbon canister exhaust VOC concentrations.

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.697]
Subpart QQQ - Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems
Recordkeeping requirements.**

(a) All records shall be retained for a period of five (5) years after being recorded unless otherwise noted.

(b) Individual Drain Systems

(1) For individual drain systems subject to 40 C.F.R. § 60.692-2, the location, date, and corrective action shall be recorded for each drain when the water seal is dry or otherwise breached, when a drain cap or plug is missing or improperly installed, or other problem is identified that could result in VOC emissions, as determined during the initial and periodic visual or physical inspection.

(2) For junction boxes subject to 40 C.F.R. § 60.692-2, the location, date, and corrective action shall be recorded for inspections required by 40 C.F.R. § 60.692-2(b) when a broken seal, gap, or other problem is identified that could result in VOC emissions.

(3) For sewer lines subject to 40 C.F.R. § 60.692-2 and 40 C.F.R. § 60.693-1(e), the location, date, and corrective action shall be recorded for inspections required by 40 C.F.R. §§ 60.692-2(c) and 60.693-1(e) when a problem is identified that could result in VOC emissions.

(c) For oil-water separators subject to 40 C.F.R. § 60.692-3, the location, date, and corrective action shall be recorded for inspections required by 40 C.F.R. § 60.692-3(a) when a problem is identified that could result in VOC emissions.

(d) For closed vent systems subject to 40 C.F.R. § 60.692-5 and completely closed drain systems subject to 40 C.F.R. § 60.693-1, the location, date, and corrective action shall be recorded for inspections required by 40 C.F.R. § 60.692-5(e) during which detectable emissions are measured or a problem is identified that could result in VOC emissions.

(e) Repairs.

(1) If an emission point cannot be repaired or corrected without a process unit shutdown, the expected date of a successful repair shall be recorded.

(2) The reason for the delay as specified in 40 C.F.R. § 60.692-6 shall be recorded if an emission point or equipment problem is not repaired or corrected in the specified amount of time.

(3) The signature of the permittee (or designee) whose decision it was that repair could not be effected without refinery or process shutdown shall be recorded.

**SECTION D. Source Level Requirements**

(4) The date of successful repair or corrective action shall be recorded.

(f) Life Records.

(1) A copy of the design specifications for all equipment used to comply with 40 C.F.R. 60, Subpart QQQ, shall be kept for the life of the source in a readily accessible location.

(2) The following information pertaining to the design specifications shall be kept.

- (i) Detailed schematics, and piping and instrumentation diagrams.
- (ii) The dates and descriptions of any changes in the design specifications.

(3) The following information pertaining to the operation and maintenance of closed drain systems and closed vent systems shall be kept in a readily accessible location.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions shall be kept for the life of the facility. This documentation is to include a general description of the gas streams that enter the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device.

(ii) The design analysis for the non-regenerative carbon adsorption system shall have considered the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule. This design analysis documentation shall be maintained for the life of the control device.

(iii) Periods when the closed vent systems and control devices required in 40 C.F.R. § 60.692 are not operated as designed, including periods when a flare pilot does not have a flame shall be recorded and kept for 5 years after the information is recorded.

(iv) Dates of startup and shutdown of the closed vent system and control devices required in 40 C.F.R. § 60.692 shall be recorded and kept for 5 years after the information is recorded.

(v) The dates of each measurement of detectable emissions required in 40 C.F.R. §§ 60.692, 60.693, or 60.692-5 shall be recorded and kept for five (5) years after the information is recorded.

(vi) The background level measured during each detectable emissions measurement shall be recorded and kept for five (5) years after the information is recorded.

(vii) The maximum instrument reading measured during each detectable emission measurement shall be recorded and kept for five (5) years after the information is recorded.

(viii) The permittee using a carbon adsorber shall maintain continuous records of the VOC concentration level or reading of organics of the control device outlet gas stream or inlet and outlet gas stream and records of all 3-hour periods of operation during which the average VOC concentration level or reading of organics in the exhaust gases, or inlet and outlet gas stream, is more than 20 percent greater than the design exhaust gas concentration level, and shall keep such records for five (5) years after the information is recorded. The records shall be maintained consistent with the monitoring requirement in Condition #002 for Source ID 106 in this Section.

(ix) The permittee shall maintain records of the dates and times when the control device is monitored, when breakthrough is measured, and shall record the date and time that the existing carbon in the control device is replaced with fresh carbon.

(g) If the permittee elects to install a tightly sealed cap or plug over a drain that is out of active service, the permittee shall

**SECTION D. Source Level Requirements**

keep for the life of a facility in a readily accessible location, plans or specifications which indicate the location of such drains.

(h) For storm water sewer systems subject to the exclusion in 40 C.F.R. § 60.692-1(d)(1), a permittee shall keep for the life of the facility in a readily accessible location, plans or specifications which demonstrate that no wastewater from any process units or equipment is directly discharged to the storm water sewer system.

(i) For ancillary equipment subject to the exclusion in 40 C.F.R. § 60.692-1(d)(2), the permittee shall keep for the life of a facility in a readily accessible location, plans or specifications which demonstrate that the ancillary equipment does not come in contact with or store oily wastewater.

(j) For non-contact cooling water systems subject to the exclusion in 40 C.F.R. § 60.692-1(d)(3), the permittee shall keep for the life of the facility in a readily accessible location, plans or specifications which demonstrate that the cooling water does not contact hydrocarbons or oily wastewater and is not recirculated through a cooling tower.

(k) For oil-water separators subject to 40 C.F.R. § 60.693-2, the location, date, and corrective action shall be recorded for inspections required by 40 C.F.R. §§ 60.693-2(a)(1)(iii)(A) and (B), and shall be maintained for the time period specified below:

(1) For inspections required by 40 C.F.R. § 60.693-2(a)(1)(iii)(A), ten years after the information is recorded.

(2) For inspections required by 40 C.F.R. § 60.693-2(a)(1)(iii)(B), two years after the information is recorded.

V. REPORTING REQUIREMENTS.**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall, in accordance with 40 C.F.R. § 60.4, submit copies of all reports, requests, applications, submittals, and other communication to both EPA and the Department.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.698]**Subpart QQQ - Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems Reporting requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) The permittee may elect to comply with the provisions of 40 C.F.R. § 60.693 and shall notify the Administrator of the alternative standard selected in the report required in 40 C.F.R. § 60.7.

(b) The permittee shall submit to the Administrator semiannually a certification that all of the required inspections have been carried out in accordance with these standards.

(c) A report that summarizes all inspections when a water seal was dry or otherwise breached, when a drain cap or plug was missing or improperly installed, or when cracks, gaps, or other problems were identified that could result in VOC emissions, including information about the repairs or corrective action taken, shall be submitted semiannually to the Administrator.

(d) As applicable, a report shall be submitted semiannually to the Administrator that indicates each 3-hour period of operation during which the average VOC concentration level or reading of organics in the exhaust gases from a carbon adsorber is more than 20 percent greater than the design exhaust gas concentration level or reading. Each occurrence when the carbon in a carbon adsorber system that is not regenerated directly onsite in the control device is not replaced at the predetermined interval specified in § 60.695(a)(3)(ii).

(e) If compliance with the provisions of 40 C.F.R. 60, Subpart QQQ, is delayed pursuant to 40 C.F.R. § 60.692-7, the notification required under 40 C.F.R. § 60.7(a)(4) shall include the estimated date of the next scheduled refinery or process unit shutdown after the date of notification and the reason why compliance with the standards is technically impossible without a refinery or process unit shutdown.

**SECTION D. Source Level Requirements****VI. WORK PRACTICE REQUIREMENTS.****# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The individual drain systems shall be installed, checked or inspected, and operated in accordance with 40 C.F.R. §§ 60.692-2 or 60.693-1.

(b) Each oil-water separator tank shall be equipped and operated with the required control devices in compliance with 40 C.F.R. §§60.692-3 or 60.693-2.

(c) The permittee shall adhere to the manufacturer's recommended practices to ensure the process vapors transferred to the activated carbon canisters meet the minimum control efficiency.

009 [25 Pa. Code §129.55]**Petroleum refineries--specific sources**

This condition applies only to the wastewater separator located in the Advanced Wastewater Treatment Plant (AWWTP).

No person may permit the use of a compartment of a single or multiple compartment volatile organic compound wastewater separator which compartment receives effluent water containing 200 gallons a day or more of any volatile organic compound from equipment processing, refining, treating, storing, or handling volatile organic compounds unless the compartment is equipped with one of the following vapor loss control devices--properly installed, in good working order, and in operation--as follows:

(a) A container having all openings sealed and totally enclosing the liquid contents. Gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(b) A container equipped with a floating roof--consisting of a pontoon-type roof, double-deck-type roof, or internal floating cover--which will rest on the surface of the contents and be equipped with closure seal or seals to close the space between the roof edge and container wall. Gauging and sampling devices shall be gas tight except when gauging or sampling is taking place.

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.692-3]**Subpart QQQ - Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems Standards: Oil-water separators.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) This source shall be equipped and operated with a fixed roof, which meets the following specifications, except as provided in 40 C.F.R. § 60.692-2(d) or in 40 C.F.R. § 60.693-2.

(1) The fixed roof shall be installed to completely cover the separator tank, slop oil tank, storage vessel, or other auxiliary equipment with no separation between the roof and the wall.

(2) The vapor space under a fixed roof shall not be purged unless the vapor is directed to a control device.

(3) If the roof has access doors or openings, such doors or openings shall be gasketed, latched, and kept closed at all times during operation of the separator system, except during inspection and maintenance.

(4) Roof seals, access doors, and other openings shall be checked by visual inspection initially and semiannually thereafter to ensure that no cracks or gaps occur between the roof and wall and that access doors and other openings are closed and gasketed properly.

(5) When a broken seal or gasket or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than fifteen (15) calendar days after it is identified, except as provided in 40 C.F.R. § 60.692-6.

(b) Each oil-water separator tank or auxiliary equipment with a design capacity to treat more than 16 liters per second (250 gpm) of refinery wastewater shall, in addition to the requirements in paragraph (a) of this section, be equipped and operated with a closed vent system and control device, which meet the requirements of 40 C.F.R. § 60.692-5, except as provided in 40 C.F.R. § 60.692-2(c) or in 40 C.F.R. § 60.693-2.

**SECTION D. Source Level Requirements**

(c) Slop oil from an oil-water separator tank and oily wastewater from slop oil handling equipment shall be collected, stored, transported, recycled, reused, or disposed of in an enclosed system. Once slop oil is returned to the process unit or is disposed of, it is no longer within the scope of this subpart. Equipment used in handling slop oil shall be equipped with a fixed roof meeting the requirements of paragraph (a) of this section.

(d) Each oil-water separator tank, slop oil tank, storage vessel, or other auxiliary equipment that is required to comply with 40 C.F.R. § 60.692-2(a), and not 40 C.F.R. § 60.692-2(b), may be equipped with a pressure control valve as necessary for proper system operation. The pressure control valve shall be set at the maximum pressure necessary for proper system operation, but such that the valve will not vent continuously.

**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.692-5]
Subpart QQQ - Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems
Standards: Closed vent systems and control devices.**

[Additional authority for this permit condition is also derived from 25 Pa. Code §127.441]

(a) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816°C (1,500°F).

(b) Vapor recovery systems (for example, condensers and adsorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater.

(c) Flares used to comply with this subpart shall comply with the requirements of 40 C.F.R. §60.18.

(d) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(e) (1) Closed vent systems shall be designed and operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined during the initial and semiannual inspections by the methods specified in §60.696.

(2) Closed vent systems shall be purged to direct vapor to the control device.

(3) A flow indicator shall be installed on a vent stream to a control device to ensure that the vapors are being routed to the device.

(4) All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(5) When emissions from a closed system are detected, first efforts at repair to eliminate the emissions shall be made as soon as practicable, but not later than 30 calendar days from the date the emissions are detected, except as provided in §60.692-6.

**# 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.692-6]
Subpart QQQ - Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems
Standards: Delay of repair.**

(a) Delay of repair of facilities that are subject to the provisions of 40 C.F.R. 60 Subpart QQQ will be allowed if the repair is technically impossible without a complete or partial refinery or process unit shutdown.

(b) Repair of such equipment shall occur before the end of the next refinery or process unit shutdown.

**# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.693-2]
Subpart QQQ - Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems
Alternative standards for oil-water separators.**

(a) Floating roof

(1) Each floating roof shall be equipped with a closure device between the wall of the separator and the roof edge. The

SECTION D. Source Level Requirements

closure device is to consist of a primary seal and a secondary seal.

(i) The primary seal shall be a liquid-mounted seal.

(A) A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the separator and the floating roof.

(B) The gap width between the primary seal and the separator wall shall not exceed 3.8 cm (1.5 in.) at any point.

(C) The total gap area between the primary seal and the separator wall shall not exceed 67 cm²/m (3.2 in.²/ft) of separator wall perimeter.

(ii) The secondary seal shall be above the primary seal and cover the annular space between the floating roof and the wall of the separator.

(A) The gap width between the secondary seal and the separator wall shall not exceed 1.3 cm (0.5 in.) at any point.

(B) The total gap area between the secondary seal and the separator wall shall not exceed 6.7 cm²/m (0.32 in.²/ft) of separator wall perimeter.

(iii) The maximum gap width and total gap area shall be determined by the methods and procedures specified in 60.696(d).

(A) Measurement of primary seal gaps shall be performed within 60 calendar days after initial installation of the floating roof and introduction of refinery wastewater and once every 5 years thereafter.

(B) Measurement of secondary seal gaps shall be performed within 60 calendar days of initial introduction of refinery wastewater and once every year thereafter.

(iv) The owner or operator shall make necessary repairs within 30 calendar days of identification of seals not meeting the requirements listed in paragraphs (a)(1) (i) and (ii) of this section.

(2) Except as provided in paragraph (a)(4) of this section, each opening in the roof shall be equipped with a gasketed cover, seal, or lid, which shall be maintained in a closed position at all times, except during inspection and maintenance.

(3) The roof shall be floating on the liquid (i.e., off the roof supports) at all times except during abnormal conditions (i.e., low flow rate).

(4) The floating roof may be equipped with one or more emergency roof drains for removal of stormwater. Each emergency roof drain shall be fitted with a slotted membrane fabric cover that covers at least 90 percent of the drain opening area or a flexible fabric sleeve seal.

(5) (i) Access doors and other openings shall be visually inspected initially and semiannually thereafter to ensure that there is a tight fit around the edges and to identify other problems that could result in VOC emissions.

(ii) When a broken seal or gasket on an access door or other opening is identified, it shall be repaired as soon as practicable, but not later than 30 calendar days after it is identified, except as provided in 60.692-6.

(b) The permittee must notify the Administrator in the report required by 40 C.F.R. 60.7 that the owner or operator has elected to construct and operate a floating roof under paragraph (a) of this section.

(c) For portions of the oil-water separator tank where it is infeasible to construct and operate a floating roof, such as the skimmer mechanism and weirs, a fixed roof meeting the requirements of 60.692-3(a) shall be installed.

(d) Except as provided in paragraph (c) of this section, if an owner or operator elects to comply with the provisions of this section, then the owner or operator does not need to comply with the provisions of 60.692-3 or 60.694 applicable to the

SECTION D. Source Level Requirements

same facilities.

**# 014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.696]
Subpart QQQ - Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems
Performance test methods and procedures and compliance provisions.**

The closed vent system and control device is exempt from 40 C.F.R. § 60.8 and shall use EPA Method 21 to measure the emission concentrations, using 500 ppm as the no detectable emission limit. The instrument shall be calibrated each day before using. The calibration gases shall be:

- (a) Zero air (less than 10 ppm of hydrocarbon in air), and
- (b) A mixture of either methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

**# 015 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.647]
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Wastewater provisions.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

As specified in 40 C.F.R. § 63.647, each Group 1 wastewater stream shall comply with the requirements of 40 C.F.R. 61 §§ 340 through 355, for each process wastewater stream that meets the definition in 40 C.F.R. § 61.341.

VII. ADDITIONAL REQUIREMENTS.

**# 016 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

- (a) Additional requirements under 40 C.F.R. 63, Subpart CC, for this wastewater treatment system can be found in Source ID 128, of this operating permit.
- (b) Additional requirements under 40 C.F.R. 61, Subpart FF, for this wastewater treatment system can be found in Source ID 133, of this operating permit.
- (c) The regulated components of the Wastewater Treatment Plant are listed below:
 - (i) The forebay
 - (ii) The oil-water separator (API)
 - (iii) The back end
 - (iv) Four (4) oil tanks (Tank Nos. 83, 84, 312, and 313)

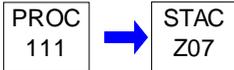
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 111

Source Name: COOLING TOWERS

Source Capacity/Throughput: 60.000 Th BBL/HR COOLING WATER

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

001 [25 Pa. Code §127.512]

Operating permit terms and conditions.

The permittee shall not use chromium based water treatment chemicals in this source.

VII. ADDITIONAL REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Additional requirements for the cooling towers are specified in the conditions for Source ID 700 - Heat Exchange Systems.

*** **Permit Shield in Effect.** ***

**SECTION D. Source Level Requirements**

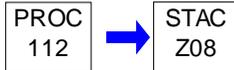
Source ID: 112

Source Name: PURGING & SAMPLING, ETC

Source Capacity/Throughput:

8.500 Th BBL/HR

CRUDE

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.648]

**Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Equipment leak standards.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441 and 40 C.F.R. § 60.480.]

Each sampling connection system subject to sampling standards pursuant to 40 C.F.R. 60, Subpart VV, or 40 C.F.R. § 63.648(a)(1) shall be equipped with a closed-purged, closed-loop, or closed-vent system, and will comply with the specifications of 40 C.F.R. § 60.482-5(b)(1)-(3).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

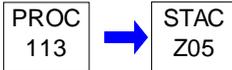
Source ID: 113

Source Name: LPG RECOVERY UNIT

Source Capacity/Throughput:

8.500 Th BBL/HR

CRUDE OIL

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

VOC emissions from this source shall not exceed 4.6 tons in any consecutive 12 month period.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall monitor VOC emissions from this source according to the applicable LDAR schedule for NSPS sources, as indicated in Source #115, Condition #002.

IV. RECORDKEEPING REQUIREMENTS.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall record the monitored VOC emissions from this source according to the applicable LDAR schedule for NSPS sources, as indicated in Source #115.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Additional requirements for this source are found in Source ID #115.

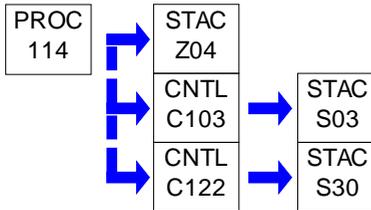
***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: 114

Source Name: RACT FUGITIVE EQUIPMENT

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 001 [25 Pa. Code §129.58]****Petroleum refineries--fugitive sources**

a. The permittee shall conduct a monitoring program consistent with the following requirements:

- i. Check yearly, by methods referenced in 25 Pa. Code § 139.14, pump seals and pipeline valves in liquid service.
- ii. Check quarterly by methods referenced in 25 Pa. Code § 139.14, compressor seals, pipeline valves in gaseous service, and pressure relief valves in gaseous service.
- iii. Check monthly, by visual methods, all pump seals.
- iv. Check within 24 hours, by methods referenced in 25 Pa. Code § 139.14, a pump seal from which VOC liquids are observed to be dripping.
- v. Check, by methods referenced in 25 Pa. Code § 139.14, a relief valve within 24 hours after it has vented to the atmosphere.
- vi. Check within 72 hours after repair, by methods referenced in 25 Pa. Code § 139.14, any refinery component that was found leaking.

b. Pressure relief devices which are connected to an operating flare header, vapor recovery devices, inaccessible valves, storage tank valves and valves that are not externally regulated are exempt from the monitoring requirements above.

c. The permittee, upon the detection of a leaking refinery component, shall affix a weatherproof and readily visible tag, bearing an identification number and the date upon which the leak is located to the leaking refinery component. This tag shall remain in place until the leaking refinery component is repaired.

IV. RECORDKEEPING REQUIREMENTS.**# 002 [25 Pa. Code §129.58]****Petroleum refineries--fugitive sources**

a. The permittee shall maintain a leaking refinery components' log which shall contain, at a minimum, the following data:

- i. The name and process unit where the refinery component is located.
- ii. The type of refinery component-- for example, valve, seal.
- iii. The tag number of refinery component.
- iv. The dates on which the leaking refinery component was discovered and repaired.
- v. The date and instrument reading of the recheck procedure after a leaking refinery component was repaired.
- vi. A record of the calibration of the monitoring instrument.

**SECTION D. Source Level Requirements**

- vii. Those leaks that cannot be repaired until turnaround.
 - viii. The total number of refinery components checked and the total number of refinery components found leaking.
- b. Copies of the monitoring log shall be retained by the permittee for five (5) years after the date on which the record was made or the report was prepared.
- c. Copies of the monitoring log shall immediately be made available to the Department, upon verbal or written request, at any reasonable time.

V. REPORTING REQUIREMENTS.**# 003 [25 Pa. Code §129.58]****Petroleum refineries--fugitive sources**

Upon completion of each yearly and quarterly monitoring procedure, the permittee shall:

(a) Submit a report to the Department by the last business day of January, April, July, and October that lists all leaking refinery components that were located during the previous calendar quarter but not repaired within fifteen (15) days, all leaking refinery components awaiting unit turnaround, the total number of refinery components inspected and the total number of refinery components found leaking.

(b) Submit a signed statement with the report attesting to the fact that, with the exception of those leaking refinery components listed in subparagraph (a) above, monitoring and repairs were performed as stipulated in the monitoring program.

004 [25 Pa. Code §129.58]**Petroleum refineries--fugitive sources**

a. The permittee may submit to the Department a list of refinery components the inspection of which would involve a significant element of danger. The Department may exempt the refinery components on this list from the requirements of this section if the permittee can demonstrate to the satisfaction of the Department that a significant element of danger exists which cannot be reasonably eliminated and that these exemptions will not result in a significant reduction in the effectiveness in the control of VOC emissions. Any component so exempted by the Department prior to, or subsequent to, issuance of this permit is exempt from the provisions of 25 Pa. Code § 128.58.

VI. WORK PRACTICE REQUIREMENTS.**# 005 [25 Pa. Code §129.58]****Petroleum refineries--fugitive sources**

a. Pipeline valves and pressure relief valves in gaseous VOC service shall be marked in some manner that will be readily obvious to both refinery personnel performing monitoring and the Department.

b. Except for safety pressure relief valves and fittings on all valves one (1) inch or smaller, the permittee shall not install or operate a valve at the end of a pipe or line containing VOCs unless the pipe or line is sealed with a second valve, a blind flange, a plug or a cap. The sealing device may be removed only when a sample is being taken or during maintenance operations.

VII. ADDITIONAL REQUIREMENTS.**# 006 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The following components at the facility are subject to the leak detection and repair (LDAR) requirements applicable to fugitive sources at petroleum refineries, specified in 25 Pa. Code § 129.58. Certain of these components may also be subject to federal LDAR requirements established under 40 C.F.R. 60, Subpart W (through GGG), or 40 C.F.R. 63, Subpart CC, as appropriate. In accordance with an alternative monitoring plan submitted by the permittee, and approved by the Department on August 24, 1998, a source that is subject to both the provisions of 25 Pa. Code § 129.58 and either federal LDAR requirement, satisfies the requirements of 25 Pa. Code § 129.58 by complying with the provisions of the applicable federal LDAR standard. Therefore, each component at the facility that is subject to an LDAR requirement under state or federal regulations complies with applicable LDAR standards by implementing an LDAR program consistent with the single

**SECTION D. Source Level Requirements**

designated regulatory program. The fugitive monitoring plan developed and maintained on-site by the permittee identifies which portions of each unit are subject to the requirements for fugitive Sources IDs #114, 115, 128 or 215. This section of the permit identifies applicable standards for Source ID #114, which satisfies LDAR obligations through compliance with the provisions of 25 Pa. Code § 129.58.

Alky Unit
 Amine Unit
 Gasoline Blending
 Boiler House
 Butane Loading Rack
 Crude Units
 Desalter System
 Diesel Hydrodesulfurization Unit
 Diesel Hydrotreating Unit
 FCC Unit
 FCC Wet Gas Compressor
 Flare
 Isocracker Unit
 Kerosene Hydrodesulfurization Unit
 Kerosene Hydrotreating Unit
 Lowline Unit
 Marine Terminal Vapor Recovery System (VRS)
 Naphtha Hydrodesulfurization Unit
 Naphtha Unit
 Old Yard Flare
 Platformer Unit
 Propane Railcar Loading
 Propane Recovery Unit
 Propane Storage
 Reformate
 Sour Water Stripper
 Sulfur Recovery Unit (SRU)
 Sun Olin Unit
 Tank Farm
 Vacuum Stills
 VGO Hydrotreating Unit

007 [25 Pa. Code §129.58]

Petroleum refineries--fugitive sources

The permittee may submit an alternative plan for the control of leaks from petroleum refinery equipment to the Department. If the Department finds that the alternative plan will achieve an emission reduction which is equivalent to or greater than the reduction which can be achieved under 25 Pa. Code § 129.58 and that the alternative plan is as enforceable as 25 Pa. Code § 129.58, then the Department will allow the implementation of this alternative plan.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: 115

Source Name: NSPS FUGITIVE EQUIPMENT

Source Capacity/Throughput:



I. RESTRICTIONS.

Emission Restriction(s).

001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592] Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries Standards.

The permittee shall comply with the requirements of 40 C.F.R. §§60.482-1 to 60.482-10 at all times.

Control Device Efficiencies Restriction(s).

002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592] Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries Standards.

As per 40 C.F.R. §§60.592 and 60.482-10, closed vent systems shall use flares that comply with the requirements of 40 C.F.R. §60.18.

II. TESTING REQUIREMENTS.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592] Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries Standards.

The permittee shall comply with the provisions of 40 C.F.R. §60.485 except as provided in 40 C.F.R. §60.593.

(a) In conducting the performance tests required in 40 C.F.R. §60.8, the permittee shall use as reference methods and procedures for the test methods in appendix A of 40 C.F.R. Part 60 or other methods and procedures as specified in this section, except as provided in 40 C.F.R. §60.8(b).

(b) The permittee shall determine compliance with the standards in 40 C.F.R. §§60.482-1 through 60.482-10, 60.483, and 60.484 as follows:

(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:

- (i) Zero air (less than 10 ppm of hydrocarbon in air); and
- (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.

(c) The permittee shall determine compliance with the no detectable emission standards in 40 C.F.R. §§60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows:

- (1) The requirements of paragraph (b) shall apply.
- (2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

SECTION D. Source Level Requirements

(d) The permittee shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

(1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference—see 40 C.F.R. §60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.

(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.

(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d) (1) and (2) above shall be used to resolve the disagreement.

(e) The permittee shall demonstrate that a piece of equipment is in light liquid service by showing that all the following conditions apply:

(1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 °C (1.2 in. H₂O at 68 °F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference—see 40 C.F.R. §60.17) shall be used to determine the vapor pressures.

(2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H₂O at 68 °F) is equal to or greater than 20 percent by weight.

(3) The fluid is a liquid at operating conditions.

(f) Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

(g) The permittee shall determine compliance with the standards of flares as follows:

(1) Method 22 shall be used to determine visible emissions.

(2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.

(3) The maximum permitted velocity for air assisted flares shall be computed using the equation specified in 40 C.F.R. §60.485(g)(3).

(4) The net heating value (HT) of the gas being combusted in a flare shall be computed using the equation specified in 40 C.F.R. §60.485(g)(4).

(5) Method 18 or ASTM D6420-99 (2004) (where the target compound(s) are those listed in Section 1.1 of ASTM D6420-99, and the target concentration is between 150 parts per billion by volume and 100 parts per million by volume) and ASTM D2504-67, 77 or 88 (Reapproved 1993) (incorporated by reference—see 40 C.F.R. §60.17) shall be used to determine the concentration of sample component “i.”

(6) ASTM D2382-76 or 88 or D4809-95 (incorporated by reference—see 40 C.F.R. §60.17) shall be used to determine the net heat of combustion of component “i” if published values are not available or cannot be calculated.

(7) Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.****# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592]****Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries Standards.**

A. 40 C.F.R. §60.482-3 - Standards: Pumps in light liquid service.

(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 C.F.R. §60.485(b), except as provided in 40 C.F.R. §60.482-1(c) and (f) and §60.482-3(d), (e), and (f).

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in 40 C.F.R. §60.482-1(f).

(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, the permittee shall follow the procedure specified in either 40 C.F.R. §60.482-3(b)(2)(i) or (ii). This requirement does not apply to a pump that was monitored after a previous weekly inspection if the instrument reading for that monitoring event was less than 10,000 ppm and the pump was not repaired since that monitoring event.

(i) Monitor the pump within 5 days as specified in 40 C.F.R. §60.485(b). If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. The leak shall be repaired using the procedures in 40 C.F.R. §60.482-3(c).

(ii) Designate the visual indications of liquids dripping as a leak, and repair the leak within 15 days of detection by eliminating the visual indications of liquids dripping.

(c) Pumps with exemptions are specified in 40 C.F.R. §60.482-2(d) through (h).

B. 40 C.F.R. §60.842-7 - Standards: Valves in gas/vapor service and in light liquid service.

(a)(1) Each valve shall be monitored monthly to detect leaks by the methods specified in 40 C.F.R. §60.485(b) and shall comply with 40 C.F.R. §60.482-7(b) through (e), except as provided in 40 C.F.R. §60.482-7(f), §60.482-1(c) and (f).

(2) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to 40 C.F.R. §60.482-7(a)(2)(i), except for a valve that replaces a leaking valve and except as provided in 40 C.F.R. §§60.482-7(f), (g), and (h), 60.482-1(c).

(i) Monitor the valve as in 40 C.F.R. §60.482-7(a)(1). The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1)(i) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

(ii) As an alternative to monitoring all of the valves in the first month of a quarter, the permittee may elect to subdivide the process unit into 2 or 3 subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The permittee must keep records of the valves assigned to each subgroup.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

(d) Exemptions to this section are specified in 40 C.F.R. §60.482-7(f) through (h).

C. 40 C.F.R. §60.842-10 - Standards: Closed vent systems and control devices.

**SECTION D. Source Level Requirements**

- (a) The permittee shall monitor the flares to ensure that they are operated and maintained in conformance with their designs.
- (b) Except as provided in 40 C.F.R. §60.482-10(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 40 C.F.R. §60.482-10(b)(1) and (2).
- (1) If the vapor collection system or closed vent system is constructed of hard-piping, the permittee shall comply with the requirements specified in 40 C.F.R. §60.482-10(b)(1)(i) and (b)(1)(ii):
- (i) Conduct an initial inspection according to the procedures in 40 C.F.R. §60.485(b); and
 - (ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.
- (2) If the vapor collection system or closed vent system is constructed of ductwork, the permittee shall:
- (i) Conduct an initial inspection according to the procedures in 40 C.F.R. §60.485(b); and
 - (ii) Conduct annual inspections according to the procedures in 40 C.F.R. §60.485(b).

IV. RECORDKEEPING REQUIREMENTS.

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592]
Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries
Standards.**

A. 40 C.F.R. §60.482-10 - Standards: Closed vent systems and control devices.

- (a) The permittee shall record the information specified in 40 C.F.R. §60.482-10(a)(1) through (l)(5).
- (1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.
- (2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.
- (3) For each inspection during which a leak is detected, a record of the information specified in 40 C.F.R. §60.486(c).
- (4) For each inspection conducted in accordance with 40 C.F.R. §60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
- (5) For each visual inspection conducted in accordance with 40 C.F.R. §60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

B. The permittee shall comply with the provisions of 40 C.F.R. §60.486 - Recordkeeping requirements.

- (a)(1) The permittee shall comply with the recordkeeping requirements of this section.
- (2) The permittee may comply with the recordkeeping requirements for the facilities in one recordkeeping system if the system identifies each record by each facility.
- (b) When each leak is detected as specified in 40 C.F.R. §§60.482-2, 60.482-3, 60.482-7, and 60.482-8, the following requirements apply:
- (1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to

**SECTION D. Source Level Requirements**

the leaking equipment.

(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 C.F.R. §60.482-7(c) and no leak has been detected during those 2 months.

(3) The identification on equipment except on a valve, may be removed after it has been repaired.

(c) When each leak is detected as specified in 40 C.F.R. §§60.482-2, 60.482-3, 60.482-7, and 60.482-8, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

(1) The instrument and operator identification numbers and the equipment identification number.

(2) The date the leak was detected and the dates of each attempt to repair the leak.

(3) Repair methods applied in each attempt to repair the leak.

(4) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 C.F.R. §60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

(5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(6) The signature of the permittee (or designate) whose decision it was that repair could not be effected without a process shutdown.

(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days.

(8) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(9) The date of successful repair of the leak.

(d) The following information pertaining to the design requirements for closed vent systems and flares described in 40 C.F.R. §60.482-10 shall be recorded and kept in a readily accessible location:

(1) Detailed schematics, design specifications, and piping and instrumentation diagrams.

(2) The dates and descriptions of any changes in the design specifications.

(3) A description of the parameter or parameters monitored, as required in 40 C.F.R. §60.482-10(e), to ensure that the flares are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(4) Periods when the closed vent systems and control devices required in 40 C.F.R. §§60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame.

(5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 C.F.R. §§60.482-2, 60.482-3, 60.482-4, and 60.482-5.

(e) The following information pertaining to all equipment subject to the requirements in 40 C.F.R. §§60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for equipment subject to the requirements of this subpart.

(2)(i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 C.F.R. §§60.482-2(e), 60.482-3(i) and 60.482-7(f).

(ii) The designation of equipment as subject to the requirements of 40 C.F.R. §60.482-2(e), §60.482-3(i), or §60.482-7(f)

**SECTION D. Source Level Requirements**

shall be signed by the permittee. Alternatively, the permittee may establish a mechanism with their permitting authority that satisfies this requirement.

- (3) A list of equipment identification numbers for pressure relief devices required to comply with 40 C.F.R. §60.482-4.
- (4)(i) The dates of each compliance test as required in 40 C.F.R. §§60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f).
- (ii) The background level measured during each compliance test.
- (iii) The maximum instrument reading measured at the equipment during each compliance test.
- (5) A list of identification numbers for equipment in vacuum service.
- (6) A list of identification numbers for equipment that the permittee designates as operating in VOC service less than 300 hr/yr in accordance with 40 C.F.R. §60.482-1(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.
- (f) The following information pertaining to all valves subject to the requirements of 40 C.F.R. §60.482-7(g) and (h) and to all pumps subject to the requirements of 40 C.F.R. §60.482-2(g) shall be recorded in a log that is kept in a readily accessible location:
 - (1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.
 - (2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.
 - (g) Not applicable.
 - (h) The following information shall be recorded in a log that is kept in a readily accessible location:
 - (1) Design criterion required in 40 C.F.R. §§.60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and
 - (2) Any changes to this criterion and the reasons for the changes.
 - (i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 C.F.R. §60.480(d):
 - (1) An analysis demonstrating the design capacity of the affected facility,
 - (2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and
 - (3) An analysis demonstrating that equipment is not in VOC service.
 - (j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.
 - (k) The provisions of 40 C.F.R. §60.7 (b) and (d) do not apply to affected facilities subject to this subpart.

V. REPORTING REQUIREMENTS.

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592]
Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries
Standards.**

**SECTION D. Source Level Requirements**

The permittee shall comply with the provisions of 40 C.F.R. §60.487 - Reporting requirements.

(a) The permittee shall submit semiannual reports to DEP beginning six months after the initial startup date.

(b) The initial semiannual report to DEP shall include the following information:

(1) Process unit identification.

(2) Number of valves subject to the requirements of 40 C.F.R. §60.482-7, excluding those valves designated for no detectable emissions under the provisions of 40 C.F.R. §60.482-7(f).

(3) Number of pumps subject to the requirements of 40 C.F.R. §60.482-2, excluding those pumps designated for no detectable emissions under the provisions of 40 C.F.R. §60.482-2(e) and those pumps complying with 40 C.F.R. §60.482-2(f).

(4) Number of compressors subject to the requirements of 40 C.F.R. §60.482-3, excluding those compressors designated for no detectable emissions under the provisions of 40 C.F.R. §60.482-3(i) and those compressors complying with 40 C.F.R. §60.482-3(h).

(c) All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 C.F.R. §60.486:

(1) Process unit identification.

(2) For each month during the semiannual reporting period,

(i) Number of valves for which leaks were detected as described in 40 C.F.R. §60.482-7(b) or §60.483-2,

(ii) Number of valves for which leaks were not repaired as required in 40 C.F.R. §60.482-7(d)(1),

(iii) Number of pumps for which leaks were detected as described in 40 C.F.R. §60.482-2(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii),

(iv) Number of pumps for which leaks were not repaired as required in 40 C.F.R. §60.482-2(c)(1) and (d)(6),

(v) Number of compressors for which leaks were detected as described in 40 C.F.R. §60.482-3(f),

(vi) Number of compressors for which leaks were not repaired as required in 40 C.F.R. §60.482-3(g)(1), and

(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.

(4) Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report.

(d) Not applicable.

(e) The permittee shall report the results of all performance tests in accordance with 40 C.F.R. §60.8 of the General Provisions. The provisions of 40 C.F.R. §60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that the permittee must notify DEP of the schedule for the initial performance tests at least 30 days before the initial performance tests.

(f) The requirements of paragraphs (a) through (c) above remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply

**SECTION D. Source Level Requirements**

with the requirements of paragraphs (a) through (c) above, provided that they comply with the requirements established by the State.

VI. WORK PRACTICE REQUIREMENTS.

**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592]
Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries
Standards.**

A. 40 C.F.R. §60.482-2 - Standards: Pumps in light liquid service.

As per 40 C.F.R. §60.482(c)(1), when a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 C.F.R. §60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in 40 C.F.R. §60.482-3(c)(2)(i) and (ii), where practicable.

(i) Tightening the packing gland nuts;

(ii) Ensuring that the seal flush is operating at design pressure and temperature.

B. 40 C.F.R. §60.482-3 - Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 40 C.F.R. §§60.482-1(c) and 60.482-3(h), (i), and (j).

(b) Each compressor seal system as required in 40 C.F.R. §60.482-3(a) shall be:

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 40 C.F.R. §60.482-10; or

(3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.

(d) Each barrier fluid system as described in 40 C.F.R. §60.482-3(a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e)(1) Each sensor as required in 40 C.F.R. §60.482-3(d) shall be checked daily or shall be equipped with an audible alarm.

(2) The permittee shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under 40 C.F.R. §60.482-3(e)(2), a leak is detected.

(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 C.F.R. §60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(h) Exemptions to this section are specified in 40 C.F.R. §60.482-3(h) through (j).

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C. 40 C.F.R. §60.482-4 - Standards: Pressure relief devices in gas/vapor service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 C.F.R. §60.485(c).

(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 C.F.R. §60.482-9.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 C.F.R. §60.485(c).

(c) Exemptions to this section are specified in 40 C.F.R. §60.482-4(c) and (d).

D. 40 C.F.R. §60.482-5 - Standards: Sampling connection systems.

(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 C.F.R. §§60.482-1(c) and 60.482-5(c).

(b) Each closed-purge, closed-loop, or closed-vent system as required in 40 C.F.R. §60.482-5(a) shall comply with the requirements specified in 40 C.F.R. §60.482-5(b)(1) through (4).

(1) Gases displaced during filling of the sample container are not required to be collected or captured.

(2) Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied.

(3) Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured.

(4) Each closed-purge, closed-loop, or closed-vent system shall be designed and operated to meet requirements in either 40 C.F.R. §60.482-5(b)(4)(i), (ii), (iii), or (iv).

(i) Return the purged process fluid directly to the process line.

(ii) Collect and recycle the purged process fluid to a process.

(iii) Capture and transport all the purged process fluid to a control device that complies with the requirements of 40 C.F.R. §60.482-10.

(iv) Collect, store, and transport the purged process fluid to any of the following systems or facilities:

(A) A waste management unit as defined in 40 C.F.R. §63.111, if the waste management unit is subject to and operated in compliance with the provisions of 40 C.F.R. part 63, subpart G, applicable to Group 1 wastewater streams;

(B) A treatment, storage, or disposal facility subject to regulation under 40 C.F.R. part 262, 264, 265, or 266;

(C) A facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 C.F.R. part 261;

(D) A waste management unit subject to and operated in compliance with the treatment requirements of 40 C.F.R. §61.348(a), provided all waste management units that collect, store, or transport the purged process fluid to the treatment unit are subject to and operated in compliance with the management requirements of 40 C.F.R. §§61.343 through 61.347;

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or

(E) A device used to burn off-specification used oil for energy recovery in accordance with 40 C.F.R. part 279, subpart G, provided the purged process fluid is not hazardous waste as defined in 40 C.F.R. part 261.

(c) In situ sampling systems and sampling systems without purges are exempt from the requirements of 40 C.F.R. §60.482-5(a) and (b).

E. 40 C.F.R. §60.842-6 - Standards: Open-ended valves or lines.

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 C.F.R. §60.482-1(c) and §60.842-6(d) and (e).

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with 40 C.F.R. §60.842-6(a) at all other times.

(d) Exemptions to this section are specified in 40 C.F.R. §60.482-6(d) and (e).

F. 40 C.F.R. §60.482-7 - Standards: Valves in gas/vapor service and in light liquid service.

(a)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 C.F.R. §60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(b) First attempts at repair include, but are not limited to, the following best practices where practicable:

- (1) Tightening of bonnet bolts;
- (2) Replacement of bonnet bolts;
- (3) Tightening of packing gland nuts;
- (4) Injection of lubricant into lubricated packing.

G. 40 C.F.R. §60.482-8 - Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors.

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the permittee shall follow either one of the following procedures:

(1) The permittee shall monitor the equipment within 5 days by the method specified in 40 C.F.R. §60.485(b) and shall comply with the requirements of 40 C.F.R. §60.482-8(b) through (d).

(2) The permittee shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

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(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 C.F.R. §60.482-9.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under 40 C.F.R. §§60.482-2(c)(2) and 60.482-7(e).

H. 40 C.F.R. §60.482-9 - Standards: Delay of repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.

(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

(c) Delay of repair for valves will be allowed if:

(1) The permittee demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 C.F.R. §60.482-10.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

(f) When delay of repair is allowed for a leaking pump or valve that remains in service, the pump or valve may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

I. 40 C.F.R. §60.482-10 - Standards: Closed vent systems and control devices.

(a) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 C.F.R. §60.482-10(b).

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) Repair shall be completed no later than 15 calendar days after the leak is detected.

(b) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

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(c) Exemptions to this section are specified in 40 C.F.R. §60.482-10(i) through (k).

(d) Closed vent systems and the flares shall be operated at all times when emissions may be vented to them.

VII. ADDITIONAL REQUIREMENTS.**# 008 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The following specific process at the facility are subject to the leak detection and repair (LDAR) requirements specified in 40 C.F.R. 60, Subpart VV. Certain of these components may also be subject to 25 Pa. Code §129.58 and/or 40 C.F.R. 63, Subpart CC, as appropriate. In accordance with an alternative monitoring plan submitted by the permittee, and approved by the Department on August 24, 1998, a source that is subject to both the provisions of 25 Pa. Code §129.58 and 40 C.F.R. 60, Subpart GGG, satisfies the requirements of 25 Pa. Code § 129.58 by complying with the provisions of 40 C.F.R. 60, Subpart VV. Therefore, each component at the facility that is subject to an LDAR requirement under state or federal regulations complies with applicable LDAR standards by implementing an LDAR program consistent with the single, most stringent, designated regulatory program. The fugitive monitoring plan developed and maintained on-site by the permittee identifies which portions of each unit are subject to fugitive Sources IDs #114, 115, 128, or 215. This section of the permit identifies applicable standards for Source ID #115, which satisfies LDAR obligations through compliance with the provisions of 40 C.F.R. 60, Subpart VV.

Alky Unit
 Diesel Hydrotreating Unit
 Kerosene Hydrotreating Unit
 Propane Railcar Loading
 Propane Storage
 FCC Wet Gas Compressor
 Propane Recovery Unit (Source ID 113)

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.590]**Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries****Applicability and designation of affected facility.**

(a) The group of all the equipment (defined in 40 C.F.R. §60.591) within a process unit is an affected facility.

(b) Any affected facility under paragraph (a) of this section that commences construction or modification after January 4, 1983, is subject to the requirements of this subpart.

(c) Addition or replacement of equipment (defined in 40 C.F.R. §60.591) for the purpose of process improvement which is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.591]**Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries****Definitions.**

Equipment means each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in VOC service. For the purposes of recordkeeping and reporting only, compressors are considered equipment.

*** **Permit Shield in Effect.** ***

SECTION D. Source Level Requirements

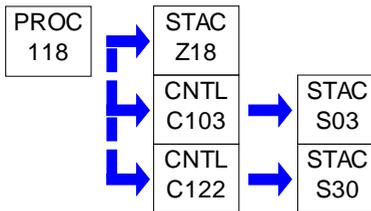
Source ID: 118

Source Name: RAILCAR LOADING LPG & BUTANE

Source Capacity/Throughput:

N/A

LPG & BUTANE

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emissions from the loading of butane and propane shall not exceed 3.94 tons in any 12 consecutive month period.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The number of rail cars that vent to the atmosphere during loading, as well as the amount of propane or butane loaded shall be recorded on a monthly basis.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall calculate the emissions from the rail car loading each month, and perform calculations to demonstrate compliance with the 12 month rolling limit.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).



SECTION D. Source Level Requirements

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

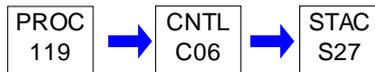
Source ID: 119

Source Name: PLATFORMER REGENERATOR

Source Capacity/Throughput:

N/A

PLATINUM CATALYST

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The emissions of hydrochloric acid from the catalyst regenerator shall not exceed 0.37 tons of HCl in any 12 consecutive month period.

002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1567]

Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units**What are my requirements for inorganic HAP emissions from catalytic reforming units?**

Uncontrolled emissions of HCl shall be reduced by 97%, by weight, corrected to 3 percent oxygen.

II. TESTING REQUIREMENTS.

003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1571]

Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units**How and when do I conduct a performance test or other initial compliance demonstration?**

The permittee may change the established operating limit by meeting the following requirements:

- (a) to change an established operating permit limit for a continuous parameter monitoring system by doing an additional performance test, a performance test in conjunction with an engineering assessment, or an engineering assessment to verify that, at the new operating limit, the permittee is in compliance with the applicable emission limitation;
- (b) establish a revised operating limit for the continuous parameter monitoring system if the permittee makes any change in process or operating conditions that could affect control system performance or the permittee changes designated conditions after the last performance or compliance tests were done. The permittee can establish the revised operating limit as described in (a), above.

III. MONITORING REQUIREMENTS.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The continuous monitoring system shall consist of a thermocouple on the inlet and outlet of the hydrogen chloride absorption system in order to measure the temperature of the inlet and outlet of the hydrogen chloride absorption system.

005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1567]

Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units**What are my requirements for inorganic HAP emissions from catalytic reforming units?**

The permittee shall:

- (a) operate, and maintain a continuous monitor of the inlet gas temperature to the hydrogen chloride absorption system; and
- (b) demonstrate continuous compliance with the average daily inlet temperature limit of not to exceed 350°F.
- (c) monitor the inlet and outlet chloride levels on the catalyst on a weekly basis in accordance with the facility's Operation,

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Maintenance, and Monitoring plan.

006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1569]

Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units

What are my requirements for HAP emissions from bypass lines?

The permittee shall visually inspect the blind flange on the bypass line at least once a month.

007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1572]

Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units

What are my monitoring installation, operation, and maintenance requirements?

(a) The permittee must operate, and maintain the inlet thermocouple according to the following:

(1) the thermocouple must have valid hourly average data from at least 75 percent of the hours during which the process operated; and

(2) the thermocouple must determine and record the hourly average of all recorded readings and the daily average of all recorded readings for each operating day. The daily average must cover a 24-hour period if operation is continuous or the number of hours of operation per day if operation is not continuous.

(b) The permittee must monitor and collect data according to the following:

(1) except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks), the permittee must conduct all monitoring in continuous operation at all times this source is operating; and

(2) the permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities for purposes of this regulation, including data averages and calculations. The permittee must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

IV. RECORDKEEPING REQUIREMENTS.**# 008 [25 Pa. Code §127.441]**

Operating permit terms and conditions.

Sufficient data shall be recorded, in a format approved by the Department, so that compliance with the conditions in this operating permit can be determined.

(a) The permittee shall keep a copy of all stack tests that are required by this operating permit.

(b) The permittee shall keep monthly, and 12 consecutive month, records of the emissions of hydrochloric acid from the regenerator.

(c) The permittee shall keep a record of the monitoring that is required by this operating permit.

009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1569]

Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units

What are my requirements for HAP emissions from bypass lines?

The permittee shall record the results of the monthly monitoring of the bypass line including whether the blind is maintained in the correct position such that the vent stream cannot be diverted through the bypass line.

010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1576]

Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units

What records must I keep, in what form, and for how long?

(a) The permittee must retain the following:

(1) A copy of each notification and report that the company submitted to comply with 40 C.F.R. 63, Subpart UUU, including all documentation supporting any initial notification or Notification of Compliance Status that the company submitted);

**SECTION D. Source Level Requirements**

- (2) The records in 40 C.F.R. § 63.6(e)(1)(iii) through (v) related to startup, shutdown, and malfunction; and
 - (3) Records of performance tests and performance evaluations as required in 40 C.F.R. § 63.10(b)(2)(viii).
- (b) The permittee must keep records required by Tables 27, 28, and 39 of 40 C.F.R. 63, Subpart UUU to show continuous compliance with each emission limitation that applies to the source.
- (c) The permittee must keep a current copy of the operation, maintenance, and monitoring plan onsite and available for inspection. The permittee must keep records to show continuous compliance with the procedures in the operation, maintenance, and monitoring plan.
- (d) The permittee must keep the records of any changes that affect emission control system performance including, but not limited to, the location at which the vent stream is introduced into the flame zone for a boiler or process heater.
- (e) The permittee's records must be in a form suitable and readily available for expeditious review.
- (f) The permittee must keep each record for five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. These records must be kept on site for at least two (2) years, after which they may be kept off site for the remaining 3 years.

V. REPORTING REQUIREMENTS.**# 011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1570]****Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my general requirements for complying with this subpart?**

- (a) The permittee shall report each instance of the following:
- (1) chloride limit exceedances; and
 - (2) inlet temperature exceedances, including periods of startup, shutdown, and malfunction. The report shall also include each instance in which it did not meet the work practice standards in 40 C.F.R. 63, Subpart UUU. These deviations must be reported according to the requirements in 40 C.F.R. § 63.1575.
- (b) Deviations that occur during a period of startup, shutdown, or malfunction are not violations if the permittee demonstrates to the Administrator's satisfaction that it was operating in accordance with the SSMP. The SSMP shall require that good air pollution control practices are used during those periods. The plan must also include elements designed to minimize the frequency of such periods (i.e., root cause analysis). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in 40 C.F.R. §63.6(e) and the contents of the SSMP.

012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1575]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What reports must I submit and when?**

- (a) The permittee must submit each report semiannually as outlined in Table 43 of 40 C.F.R. Part 63, Subpart UUU.
- (b) The compliance reports may be submitted along with the semi-annual compliance certification reports required by Section C, of this operating permit.
- (c) The compliance report must contain the information required in paragraphs (c)(1) through (4):
- (1) company name and address;
 - (2) statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report;

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(3) date of report and beginning and ending dates of the reporting period; and

(4) if there are no deviations from any emission limitation that applies and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations or work practice standards during the reporting period.

(d) For each deviation from the inlet temperature to the hydrogen chloride absorber the compliance report must contain the information in (c)(1) through (3), above, and (d)(1) through (4), below:

(1) the total operating time of each affected source during the reporting period;

(2) information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken;

(3) information concerning the chloride exceedances, including; and

(4) information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with daily calibration checks).

(e) The permittee also must include the following in each compliance report, if applicable;

(1) a copy of any performance test done during the reporting period on this source. The report may be included in the next semiannual report. The copy must include a complete report for each test method used for a particular kind of emission point tested. For additional tests performed for a similar emission point using the same method, the permittee must submit the results and any other information required, but a complete test report is not required. A complete test report contains a brief process description; a simplified flow diagram showing affected processes, control equipment, and sampling point locations; sampling site data; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; documentation of calculations; and any other information required by the test method.

(2) any requested change in the applicability of an emission standard (e.g., the permittee wants to change from the HCl concentration standard to percent reduction for catalytic reforming units) in the periodic report. All information and data necessary to demonstrate compliance with the new emission standard selected and any other associated requirements must be included.

(f) The permittee may submit reports required by other regulations in place of, or as part of, the compliance report if they contain the required information.

(g) The following reporting requirements apply to startups, shutdowns, and malfunctions:

(1) when actions taken to respond are consistent with the plan, the permittee is not required to report these events in the semiannual compliance report and the reporting requirements in 40 C.F.R. §§ 63.6(e)(3)(iii) and 63.10(d)(5) do not apply; and

(2) when actions taken to respond are not consistent with the plan, the permittee must report these events and the response taken in the semiannual compliance report. In this case, the reporting requirements in 40 C.F.R. §§ 63.6(e)(3)(iv) and 63.10(d)(5) do not apply.

VI. WORK PRACTICE REQUIREMENTS.

013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

(a) The permittee shall limit the chloride level of the sorbent entering the gas adsorption to 1.35%, or less, calculated as a weekly average.

(b) The permittee shall limit the chloride level of the sorbent exiting the gas adsorption system to 1.8%, or less, calculated

**SECTION D. Source Level Requirements**

as a weekly average.

014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1566]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my requirements for organic HAP emissions from catalytic reforming units?**

- (a) The permittee shall reduce uncontrolled emissions of total organic compounds (TOC) or nonmethane TOC from the process vent by 98 percent by weight using a control device or to a concentration of 20 ppmv (dry basis as hexane), corrected to 3 percent oxygen, whichever is less stringent.
- (b) Compliance with the above can be demonstrated by venting emissions to a boiler or process heater to comply with the percent reduction or concentration emission limitation. The vent stream must be introduced into the flame zone, or any other location that will achieve the percent reduction or concentration standard.

015 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1567]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my requirements for inorganic HAP emissions from catalytic reforming units?**

The permittee shall:

- (a) maintain an operation, maintenance, and monitoring plan according to the requirements in 40 C.F.R. § 63.1574(f) and operate at all times according to the procedures in the plan.
- (b) demonstrate continuous compliance with the work practice standard in paragraph (a), above, by maintaining records to document conformance with the procedures in the operation, maintenance and monitoring plan.

016 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1569]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my requirements for HAP emissions from bypass lines?**

The permittee must demonstrate continuous compliance with each work practice standard in Table 36 of 40 C.F.R. 63, Subpart UUU that applies according to the requirements in Table 39 of 40 C.F.R. 63, Subpart UUU.

Compliance with the procedures in the operation, maintenance, and monitoring plan shall demonstrate compliance with the above.

017 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1570]**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my general requirements for complying with this subpart?**

- (a) The permittee must maintain and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 C.F.R. §63.6(e)(3).
- (b) During periods of startup, shutdown, and malfunction, the permittee must operate the source, control device, and monitoring equipment in accordance with the SSMP.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 120

Source Name: ACID GAS FLARE

Source Capacity/Throughput:

N/A

Natural Gas

N/A

Refinery Gas

**I. RESTRICTIONS.****Fuel Restriction(s).****# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]****Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

The permittee shall not burn in this flare any fuel gas that contains hydrogen sulfide (H₂S) in excess of 162 ppmv (0.10 gr/dscf) on 3-hour average, except process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions. The combustion in the flare or process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

II. TESTING REQUIREMENTS.**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]****Subpart J - Standards of Performance for Petroleum Refineries****Test methods and procedures.**

The permittee shall determine compliance with the H₂S standard using EPA method 11, 15, 15A, or 16 for the flare sweep/assist gas.

III. MONITORING REQUIREMENTS.**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The presence of the flare pilot flame shall be monitored and recorded using a thermocouple or any other equivalent device that can detect the presence of a flame. When using any other equivalent device, the permittee shall submit to the Department a request for determination (RFD) for the change of such monitoring device. The Department will determine if new operating parameter(s), monitoring, recordkeeping, and reporting requirements in this permit need to be added or revised to accommodate the changes.

004 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The permittee shall monitor and record the total amount of the process gas including the fuel gas combusted in the flare on a monthly basis.

005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

The permittee shall use the Department certified continuous monitoring system to monitor and record the concentration (dry basis) of H₂S in fuel sweep/assist gases before being burned in the flare.

IV. RECORDKEEPING REQUIREMENTS.**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain records of all occurrences of fuel gas and process upset gases releases due to relief valve leakages or gases released during emergency malfunctions.

**SECTION D. Source Level Requirements**

(b) The permittee shall keep records of the total amount of the process gas and the fuel gas combusted in the flare on a monthly basis.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.7]**Subpart A - General Provisions****Notification and record keeping.**

(a) The permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the flare; or any periods during which a continuous monitoring system or monitoring device is inoperative.

(b) The permittee shall keep CEMS records in accordance with 40 C.F.R. §60.7(f).

V. REPORTING REQUIREMENTS.**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall report all flame outages to DEP, as per the malfunction reporting provisions in Section C of this Operating Permit.

VI. WORK PRACTICE REQUIREMENTS.**# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall eliminate the routes of continuous or intermittent, routinely-generated fuel gases to the flare and operate the flare such that it receives only process upset gases, fuel gas released as a result of relief valve leakage or gases released due to other emergency malfunctions.

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.18]**Subpart A - General Provisions****General control device requirements.**

(a) The flare shall be operated with no visible emissions as determined by the methods specified in 40 C.F.R. §60.18(f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(b) The flare shall be operated with a flame present at all times, as determined by the method specified in 40 C.F.R. §60.18(f).

(c) The flare shall be used only with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater, for non-assisted flares.

(d) The flare shall be operated with an exit velocity less than 18.3m/sec (60ft/sec).

VII. ADDITIONAL REQUIREMENTS.**# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The following sources shall be controlled by this flare:

Emergency release

Amine unit

Acid gas knockout pot

Amine stripper overhead accumulator

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 121

Source Name: SOUR GAS FLARE

Source Capacity/Throughput:

N/A

Natural Gas

N/A

Refinery Gas

**I. RESTRICTIONS.****Fuel Restriction(s).****# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]****Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

The permittee shall not burn in this flare any fuel gas that contains hydrogen sulfide (H₂S) in excess of 162 ppmv (0.10 gr/dscf) on 3-hour average, except process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions. The combustion in the flare or process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

II. TESTING REQUIREMENTS.**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]****Subpart J - Standards of Performance for Petroleum Refineries****Test methods and procedures.**

The permittee shall determine compliance with the H₂S standard using EPA method 11, 15, 15A, or 16 for the flare sweep/assist gas.

III. MONITORING REQUIREMENTS.**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The presence of the flare pilot flame shall be monitored and recorded using a thermocouple or any other equivalent device that can detect the presence of a flame. When using any other equivalent device, the permittee shall submit to the Department a request for determination (RFD) for the change of such monitoring device. The Department will determine if new operating parameter(s), monitoring, recordkeeping, and reporting requirements in this permit need to be added or revised to accommodate the changes.

004 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The permittee shall monitor and record the total amount of the process gas including the fuel gas combusted in the flare on a monthly basis.

005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

The permittee shall use the Department certified continuous monitoring system to monitor and record the concentration (dry basis) of H₂S in fuel sweep/assist gases before being burned in the flare.

IV. RECORDKEEPING REQUIREMENTS.**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain records of all occurrences of fuel gas and process upset gases releases due to relief valve leakages or gases released during emergency malfunctions.

**SECTION D. Source Level Requirements**

(b) The permittee shall keep records of the total amount of the process gas and the fuel gas combusted in the flare on a monthly basis.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.7]**Subpart A - General Provisions****Notification and record keeping.**

(a) The permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the flare; or any periods during which a continuous monitoring system or monitoring device is inoperative.

(b) The permittee shall keep CEMS records in accordance with 40 C.F.R. §60.7(f).

V. REPORTING REQUIREMENTS.**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall report all flame outages to DEP, as per the malfunction reporting provisions in Section C of this Operating Permit.

VI. WORK PRACTICE REQUIREMENTS.**# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall eliminate the routes of continuous or intermittent, routinely-generated fuel gases to the flare and operate the flare such that it receives only process upset gases, fuel gas released as a result of relief valve leakage or gases released due to other emergency malfunctions.

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.18]**Subpart A - General Provisions****General control device requirements.**

(a) The flare shall be operated with no visible emissions as determined by the methods specified in 40 C.F.R. §60.18(f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(b) The flare shall be operated with a flame present at all times, as determined by the method specified in 40 C.F.R. §60.18(f).

(c) The flare shall be used only with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater, for non-assisted flares.

(d) The flare shall be operated with an exit velocity less than 18.3m/sec (60ft/sec).

VII. ADDITIONAL REQUIREMENTS.**# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The following sources shall be controlled by this flare:

Sour water stripper gas knockout pot

Sour water storage tank (34-T-1)

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: 122

Source Name: BACK-UP FLARE

Source Capacity/Throughput:

N/A

Natural Gas

**I. RESTRICTIONS.****Fuel Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall not burn any fuel gas in the flare containing hydrogen sulfide (H₂S) in excess of 230 mg/dscm (0.10gr/dscf).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The presence of the flare pilot flame shall be monitored and recorded using a thermocouple or any other equivalent device that can detect the presence of a flame. When using any other equivalent device, the permittee shall submit to the Department a request for determination (RFD) for the change of such monitoring device. The Department will determine if new operating parameter(s), monitoring, recordkeeping, and reporting requirements in this permit need to be added or revised to accommodate the changes.

003 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) The permittee shall conduct a visual observation of the flare at least once every six (6) hours each calendar day that the back-up flare is operating.

(b) The permittee shall monitor and record the total amount of the process gas including the fuel gas combusted in the flare on a monthly basis.

IV. RECORDKEEPING REQUIREMENTS.**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall record the visual observations of the flare in a logbook.

(b) The permittee shall keep records of the total amount of the process gas and the fuel gas combusted in the flare on a monthly basis.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**SECTION D. Source Level Requirements****VI. WORK PRACTICE REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Purging and venting to the flare header from all vessels, piping and associated equipment being shutdown shall be completed prior to opening the flange to the back-up flare. Operating sources may remain connected to the flare header. The permittee shall sample the continuous gas stream to the flare header while the back-up flare is operating to ensure that the acid gas is not being sent to the back-up flare. The Main Flare pilots shall be lighted prior to shutting down the back-up flare.

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.18]**Subpart A - General Provisions****General control device requirements.**

- (1) The flare shall be designed for and operated with no visible emissions.
- (2) Flares shall be operated with a flame present at all times.
- (3) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater.
- (4) The flare shall be operated with an exit velocity less than 18.3 m/sec (60 ft/sec).

VII. ADDITIONAL REQUIREMENTS.**# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The following sources shall be controlled by the Main Flare (Source ID 103) and backed up by the Back-Up Flare (Source ID 122):

Source ID	Source Name
114	RACT Fugitive Equipment (except fugitive emissions not required to be captured for control)
115	NSPS Fugitive Equipment (except fugitive emissions not required to be captured for control)
118	Railcar Loading LPG & Butane
128	MACT Fugitive Equipment (except fugitive emissions not required to be captured for control)
210	Miscellaneous Process Vents
215	NSPS New Fugitive Equipment (except fugitive emissions not required to be captured for control)
501	Spheroid 501
502	Spheroid 502
513	Spheroid 513
T006	MACT Group 1 Tanks routed to Closed Vent System

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

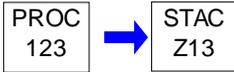
Source ID: 123

Source Name: #66 EXT.FLOAT 43M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T002 (MACT Group 1, External Floating Roof Tanks), or Source T003 (MACT Group 2 Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

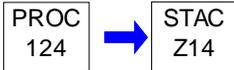
Source ID: 124

Source Name: #67 EXT.FLOAT 43M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T002 (MACT Group 1, External Floating Roof Tanks), or Source T003 (MACT Group 2 Tanks), as applicable.

***** Permit Shield in Effect. *****



SECTION D. Source Level Requirements

Source ID: 125

Source Name: #68 EXT.FLOAT 43M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

**# 001 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The applicable requirements for this source can be found in Source T005 (External floating roof, NSPS Kb tanks).

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

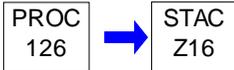
Source ID: 126

Source Name: #95 EXT.FLOAT 59M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks), Source T004 (State-Only External Floating Roof Tanks), or Source T002 (MACT Group 1, External Floating Roof Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

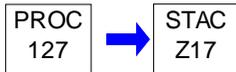
Source ID: 127

Source Name: #96 EXT.FLOAT 59M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks), Source T004 (State-Only External Floating Roof Tanks), or Source T002 (MACT Group 1, External Floating Roof Tanks), as applicable.

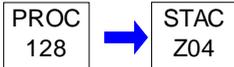
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 128

Source Name: MACT FUGITIVES

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.648]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Equipment leak standards.**

(a) As per 40 C.F.R. §63.640(p)(1), equipment leaks that are also subject to the provisions of 40 C.F.R. parts 60 and 61 standards promulgated before September 4, 2007, are required to comply only with the provisions specified in this subpart.

(b) As per 40 C.F.R. §63.648(a), the permittee shall comply with the provisions of 40 C.F.R. part 60 subpart VV.

Control Device Efficiencies Restriction(s).**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.648]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Equipment leak standards.**

Emissions from closed vent systems shall comply with the provisions of 40 C.F.R. §60.482-10 by using flares that comply with the requirements of 40 C.F.R. §60.18.

II. TESTING REQUIREMENTS.**# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.648]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Equipment leak standards.**

The permittee shall comply with test methods and procedures in accordance with 40 C.F.R. §60.485.

(a) In conducting the performance tests required in 40 C.F.R. §60.8, the permittee shall use as reference methods and procedures for the test methods in appendix A of 40 C.F.R. Part 60 or other methods and procedures as specified in this section, except as provided in 40 C.F.R. §60.8(b).

(b) The permittee shall determine compliance with the standards in 40 C.F.R. §§60.482-1 through 60.482-10, 60.483, and 60.484 as follows:

(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:

(i) Zero air (less than 10 ppm of hydrocarbon in air); and

(ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.

(c) The permittee shall determine compliance with the no detectable emission standards in 40 C.F.R. §§60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows:

(1) The requirements of paragraph (b) shall apply.

(2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) The permittee shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e.,

**SECTION D. Source Level Requirements**

that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

- (1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference—see § 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.
- (2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.
- (3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d) (1) and (2) above shall be used to resolve the disagreement.
- (e) The permittee shall demonstrate that a piece of equipment is in light liquid service by showing that all the following conditions apply:
 - (1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 °C (1.2 in. H₂O at 68 °F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference—see 40 C.F.R. §60.17) shall be used to determine the vapor pressures.
 - (2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H₂O at 68 °F) is equal to or greater than 20 percent by weight.
 - (3) The fluid is a liquid at operating conditions.
- (f) Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.
- (g) The permittee shall determine compliance with the standards of flares as follows:
 - (1) Method 22 shall be used to determine visible emissions.
 - (2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.
 - (3) The maximum permitted velocity for air assisted flares shall be computed using the equation specified in 40 C.F.R. §60.485(g)(3).
 - (4) The net heating value (HT) of the gas being combusted in a flare shall be computed using the equation specified in 40 C.F.R. §60.485(g)(4).
 - (5) Method 18 or ASTM D6420-99 (2004) (where the target compound(s) are those listed in Section 1.1 of ASTM D6420-99, and the target concentration is between 150 parts per billion by volume and 100 parts per million by volume) and ASTM D2504-67, 77 or 88 (Reapproved 1993) (incorporated by reference—see 40 C.F.R. §60.17) shall be used to determine the concentration of sample component “i.”
 - (6) ASTM D2382-76 or 88 or D4809-95 (incorporated by reference—see 40 C.F.R. §60.17) shall be used to determine the net heat of combustion of component “i” if published values are not available or cannot be calculated.
 - (7) Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.****# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.648]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Equipment leak standards.**

A. 40 C.F.R. §60.482-3 - Standards: Pumps in light liquid service.

(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 C.F.R. §60.485(b), except as provided in 40 C.F.R. §60.482-1(c) and (f) and §60.482-3(d), (e), and (f).

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in 40 C.F.R. §60.482-1(f).

(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, the permittee shall follow the procedure specified in either 40 C.F.R. §60.482-3(b)(2)(i) or (ii). This requirement does not apply to a pump that was monitored after a previous weekly inspection if the instrument reading for that monitoring event was less than 10,000 ppm and the pump was not repaired since that monitoring event.

(i) Monitor the pump within 5 days as specified in 40 C.F.R. §60.485(b). If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. The leak shall be repaired using the procedures in 40 C.F.R. §60.482-3(c).

(ii) Designate the visual indications of liquids dripping as a leak, and repair the leak within 15 days of detection by eliminating the visual indications of liquids dripping.

(c) Pumps with exemptions are specified in 40 C.F.R. §60.482-2(d) through (h).

B. 40 C.F.R. §60.842-7 - Standards: Valves in gas/vapor service and in light liquid service.

(a)(1) Each valve shall be monitored monthly to detect leaks by the methods specified in 40 C.F.R. §60.485(b) and shall comply with 40 C.F.R. §60.482-7(b) through (e), except as provided in 40 C.F.R. §60.482-7(f) and §60.482-1(c) and (f).

(2) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to 40 C.F.R. §60.482-7(a)(2)(i), except for a valve that replaces a leaking valve and except as provided in 40 C.F.R. §§60.482-7(f), (g), and (h), 60.482-1(c).

(i) Monitor the valve as in 40 C.F.R. §60.482-7(a)(1). The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1)(i) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

(ii) As an alternative to monitoring all of the valves in the first month of a quarter, the permittee may elect to subdivide the process unit into 2 or 3 subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The permittee must keep records of the valves assigned to each subgroup.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

(d) Exemptions to this section are specified in 40 C.F.R. §60.482-7(f) through (h).

C. 40 C.F.R. §60.842-10 - Standards: Closed vent systems and control devices.

**SECTION D. Source Level Requirements**

- (a) The permittee shall monitor the flares to ensure that they are operated and maintained in conformance with their designs.
- (b) Except as provided in 40 C.F.R. §60.482-10(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 40 C.F.R. §60.482-10(b)(1) and (2).
- (1) If the vapor collection system or closed vent system is constructed of hard-piping, the permittee shall comply with the requirements specified in 40 C.F.R. §60.482-10(b)(1)(i) and (b)(1)(ii):
- (i) Conduct an initial inspection according to the procedures in 40 C.F.R. §60.485(b); and
 - (ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.
- (2) If the vapor collection system or closed vent system is constructed of ductwork, the permittee shall:
- (i) Conduct an initial inspection according to the procedures in 40 C.F.R. §60.485(b); and
 - (ii) Conduct annual inspections according to the procedures in 40 C.F.R. §60.485(b).

IV. RECORDKEEPING REQUIREMENTS.

**# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.648]
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Equipment leak standards.**

A. 40 C.F.R. §60.482-10 - Standards: Closed vent systems and control devices.

- (a) The permittee shall record the information specified in 40 C.F.R. §60.482-10(a)(1) through (l)(5).
- (1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.
- (2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.
- (3) For each inspection during which a leak is detected, a record of the information specified in 40 C.F.R. §60.486(c).
- (4) For each inspection conducted in accordance with 40 C.F.R. §60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
- (5) For each visual inspection conducted in accordance with 40 C.F.R. §60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

B. The permittee shall comply with the provisions of 40 C.F.R. §60.486 - Recordkeeping requirements.

- (a)(1) The permittee shall comply with the recordkeeping requirements of this section.
- (2) The permittee may comply with the recordkeeping requirements for the facilities in one recordkeeping system if the system identifies each record by each facility.
- (b) When each leak is detected as specified in 40 C.F.R. §§60.482-2, 60.482-3, 60.482-7, and 60.482-8, the following requirements apply:
- (1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to

**SECTION D. Source Level Requirements**

the leaking equipment.

(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 C.F.R. §60.482-7(c) and no leak has been detected during those 2 months.

(3) The identification on equipment except on a valve, may be removed after it has been repaired.

(c) When each leak is detected as specified in 40 C.F.R. §§60.482-2, 60.482-3, 60.482-7, and 60.482-8, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

(1) The instrument and operator identification numbers and the equipment identification number.

(2) The date the leak was detected and the dates of each attempt to repair the leak.

(3) Repair methods applied in each attempt to repair the leak.

(4) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 C.F.R. §60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

(5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(6) The signature of the permittee (or designate) whose decision it was that repair could not be effected without a process shutdown.

(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days.

(8) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(9) The date of successful repair of the leak.

(d) The following information pertaining to the design requirements for closed vent systems and flares described in 40 C.F.R. §60.482-10 shall be recorded and kept in a readily accessible location:

(1) Detailed schematics, design specifications, and piping and instrumentation diagrams.

(2) The dates and descriptions of any changes in the design specifications.

(3) A description of the parameter or parameters monitored, as required in 40 C.F.R. §60.482-10(e), to ensure that the flares are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(4) Periods when the closed vent systems and control devices required in 40 C.F.R. §§60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame.

(5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 C.F.R. §§60.482-2, 60.482-3, 60.482-4, and 60.482-5.

(e) The following information pertaining to all equipment subject to the requirements in 40 C.F.R. §§60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for equipment subject to the requirements of this subpart.

(2)(i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 C.F.R. §§ 60.482-2(e), 60.482-3(i) and 60.482-7(f).

(ii) The designation of equipment as subject to the requirements of 40 C.F.R. §60.482-2(e), §60.482-3(i), or §60.482-7(f)

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shall be signed by the permittee. Alternatively, the permittee may establish a mechanism with their permitting authority that satisfies this requirement.

(3) A list of equipment identification numbers for pressure relief devices required to comply with 40 C.F.R. §60.482-4.

(4)(i) The dates of each compliance test as required in 40 C.F.R. §§60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(6) A list of identification numbers for equipment that the permittee designates as operating in VOC service less than 300 hr/yr in accordance with 40 C.F.R. §60.482-1(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.

(f) The following information pertaining to all valves subject to the requirements of 40 C.F.R. §60.482-7(g) and (h) and to all pumps subject to the requirements of 40 C.F.R. §60.482-2(g) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.

(2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

(g) Not applicable.

(h) The following information shall be recorded in a log that is kept in a readily accessible location:

(1) Design criterion required in 40 C.F.R. §§60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and

(2) Any changes to this criterion and the reasons for the changes.

(i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 C.F.R. §60.480(d):

(1) An analysis demonstrating the design capacity of the affected facility,

(2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and

(3) An analysis demonstrating that equipment is not in VOC service.

(j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

(k) The provisions of 40 C.F.R. §60.7 (b) and (d) do not apply to affected facilities subject to this subpart.

V. REPORTING REQUIREMENTS.

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.648]
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Equipment leak standards.**

**SECTION D. Source Level Requirements**

The permittee shall comply with the provisions of 40 C.F.R. §60.487 - Reporting requirements.

(a) The permittee shall submit semiannual reports to DEP beginning six months after the initial startup date.

(b) The initial semiannual report to DEP shall include the following information:

(1) Process unit identification.

(2) Number of valves subject to the requirements of 40 C.F.R. §60.482-7, excluding those valves designated for no detectable emissions under the provisions of 40 C.F.R. §60.482-7(f).

(3) Number of pumps subject to the requirements of 40 C.F.R. §60.482-2, excluding those pumps designated for no detectable emissions under the provisions of 40 C.F.R. §60.482-2(e) and those pumps complying with 40 C.F.R. §60.482-2(f).

(4) Number of compressors subject to the requirements of 40 C.F.R. §60.482-3, excluding those compressors designated for no detectable emissions under the provisions of 40 C.F.R. §60.482-3(i) and those compressors complying with 40 C.F.R. §60.482-3(h).

(c) All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 C.F.R. §60.486:

(1) Process unit identification.

(2) For each month during the semiannual reporting period,

(i) Number of valves for which leaks were detected as described in 40 C.F.R. §60.482-7(b) or §60.483-2,

(ii) Number of valves for which leaks were not repaired as required in 40 C.F.R. §60.482-7(d)(1),

(iii) Number of pumps for which leaks were detected as described in 40 C.F.R. §60.482-2(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii),

(iv) Number of pumps for which leaks were not repaired as required in 40 C.F.R. §60.482-2(c)(1) and (d)(6),

(v) Number of compressors for which leaks were detected as described in 40 C.F.R. §60.482-3(f),

(vi) Number of compressors for which leaks were not repaired as required in 40 C.F.R. §60.482-3(g)(1), and

(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.

(4) Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report.

(d) Not applicable.

(e) The permittee shall report the results of all performance tests in accordance with §60.8 of the General Provisions. The provisions of 40 C.F.R. §60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that the permittee must notify DEP of the schedule for the initial performance tests at least 30 days before the initial performance tests.

(f) The requirements of paragraphs (a) through (c) above remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply

**SECTION D. Source Level Requirements**

with the requirements of paragraphs (a) through (c) above, provided that they comply with the requirements established by the State.

VI. WORK PRACTICE REQUIREMENTS.

**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.648]
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Equipment leak standards.**

A. 40 C.F.R. §60.482-2 - Standards: Pumps in light liquid service.

As per 40 C.F.R. §60.482(c)(1), when a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 C.F.R. §60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in 40 C.F.R. §60.482-3(c)(2)(i) and (ii), where practicable.

(i) Tightening the packing gland nuts;

(ii) Ensuring that the seal flush is operating at design pressure and temperature.

B. 40 C.F.R. §60.482-3 - Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 40 C.F.R. §60.482-1(c) and 40 C.F.R. §60.482-3(h), (i), and (j).

(b) Each compressor seal system as required in 40 C.F.R. §60.482-3(a) shall be:

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 40 C.F.R. §60.482-10; or

(3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.

(d) Each barrier fluid system as described in 40 C.F.R. §60.482-3(a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e)(1) Each sensor as required in 40 C.F.R. §60.482-3(d) shall be checked daily or shall be equipped with an audible alarm.

(2) The permittee shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under 40 C.F.R. §60.482-3(e)(2), a leak is detected.

(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 C.F.R. §60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(h) Exemptions to this section are specified in 40 C.F.R. §60.482-3(h) through (j).

**SECTION D. Source Level Requirements**

C. 40 C.F.R. §60.482-4 - Standards: Pressure relief devices in gas/vapor service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 C.F.R. §60.485(c).

(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 C.F.R. §60.482-9.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 C.F.R. §60.485(c).

(c) Exemptions to this section are specified in 40 C.F.R. §60.482-4(c) and (d).

D. 40 C.F.R. §60.482-5 - Standards: Sampling connection systems.

(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 C.F.R. §60.482-1(c) and §60.482-5(c).

(b) Each closed-purge, closed-loop, or closed-vent system as required in 40 C.F.R. §60.482-5(a) shall comply with the requirements specified in 40 C.F.R. §60.482-5(b)(1) through (4).

(1) Gases displaced during filling of the sample container are not required to be collected or captured.

(2) Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied.

(3) Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured.

(4) Each closed-purge, closed-loop, or closed-vent system shall be designed and operated to meet requirements in either 40 C.F.R. §60.482-5(b)(4)(i), (ii), (iii), or (iv).

(i) Return the purged process fluid directly to the process line.

(ii) Collect and recycle the purged process fluid to a process.

(iii) Capture and transport all the purged process fluid to a control device that complies with the requirements of 40 C.F.R. §60.482-10.

(iv) Collect, store, and transport the purged process fluid to any of the following systems or facilities:

(A) A waste management unit as defined in 40 C.F.R. §63.111, if the waste management unit is subject to and operated in compliance with the provisions of 40 C.F.R. part 63, subpart G, applicable to Group 1 wastewater streams;

(B) A treatment, storage, or disposal facility subject to regulation under 40 C.F.R. part 262, 264, 265, or 266;

(C) A facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 C.F.R. part 261;

(D) A waste management unit subject to and operated in compliance with the treatment requirements of 40 C.F.R. §61.348(a), provided all waste management units that collect, store, or transport the purged process fluid to the treatment unit are subject to and operated in compliance with the management requirements of 40 C.F.R. §§61.343 through 61.347;

**SECTION D. Source Level Requirements**

or

(E) A device used to burn off-specification used oil for energy recovery in accordance with 40 C.F.R. part 279, subpart G, provided the purged process fluid is not hazardous waste as defined in 40 C.F.R. part 261.

(c) In situ sampling systems and sampling systems without purges are exempt from the requirements of 40 C.F.R. §60.482-5(a) and (b).

E. 40 C.F.R. §60.842-6 - Standards: Open-ended valves or lines.

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 C.F.R. §60.482-1(c) and §60.842-6(d) and (e).

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with 40 C.F.R. §60.842-6(a) at all other times.

(d) Exemptions to this section are specified in 40 C.F.R. §60.482-6(d) and (e).

F. 40 C.F.R. §60.482-7 - Standards: Valves in gas/vapor service and in light liquid service.

(a)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 C.F.R. §60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(b) First attempts at repair include, but are not limited to, the following best practices where practicable:

- (1) Tightening of bonnet bolts;
- (2) Replacement of bonnet bolts;
- (3) Tightening of packing gland nuts;
- (4) Injection of lubricant into lubricated packing.

G. 40 C.F.R. §60.482-8 - Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors.

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the permittee shall follow either one of the following procedures:

(1) The permittee shall monitor the equipment within 5 days by the method specified in 40 C.F.R. §60.485(b) and shall comply with the requirements of 40 C.F.R. §60.482-8(b) through (d).

(2) The permittee shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

**SECTION D. Source Level Requirements**

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 C.F.R. §60.482-9.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under 40 C.F.R. §§60.482-2(c)(2) and 60.482-7(e).

H. 40 C.F.R. §60.482-9 - Standards: Delay of repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.

(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

(c) Delay of repair for valves will be allowed if:

(1) The permittee demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 C.F.R. §60.482-10.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

(f) When delay of repair is allowed for a leaking pump or valve that remains in service, the pump or valve may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

I. 40 C.F.R. §60.482-10 - Standards: Closed vent systems and control devices.

(a) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 C.F.R. §60.482-10(b).

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) Repair shall be completed no later than 15 calendar days after the leak is detected.

(b) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

**SECTION D. Source Level Requirements**

(c) Exemptions to this section are specified in 40 C.F.R. §60.482-10(i) through (k).

(d) Closed vent systems and the flares shall be operated at all times when emissions may be vented to them.

VII. ADDITIONAL REQUIREMENTS.**# 008 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The following units at the facility are subject to the leak detection and repair (LDAR) requirements applicable to fugitive sources at petroleum refineries, specified in 40 C.F.R. 63, Subpart CC. Certain of these components may also be subject to 25 Pa. Code §129.58, and/or federal LDAR requirements established under 40 C.F.R. 60, Subpart VV (through GGG), as appropriate. In accordance with an alternative monitoring plan submitted by the permittee, and approved by the Department on August 24, 1998, a source that is subject to both the provisions of 25 Pa. Code §129.58 and 40 C.F.R. 63, Subpart CC, satisfies the requirements of 25 Pa. Code § 129.58 by complying with the provisions of 40 C.F.R. 63, Subpart CC. Therefore, each component at the facility that is subject to an LDAR requirement under state or federal regulations complies with applicable LDAR standards by implementing an LDAR program consistent with the LDAR provisions of 40 C.F.R. 63, Subpart CC. The fugitive monitoring plan developed and maintained on-site by the permittee identifies which portions of each unit are subject to the requirements for fugitive sources (IDs #112, 114, 115, 128, and 215). This section of the permit identifies applicable standards for Source ID #128, which satisfies LDAR obligations through compliance with the provisions of 40 C.F.R. 63, Subpart CC.

Alky Unit
 Amine Unit
 Gasoline Blending
 Crude Units
 Diesel Hydrodesulfurization Unit
 FCC Unit
 Isocracker Unit
 Kerosene Hydrodesulfurization Unit
 Marine Terminal Vapor Recovery System (VRS)
 Naphtha Hydrodesulfurization Unit
 Naphtha Unit
 Platformer Unit
 Reformate
 Sulfur Recovery Unit (SRU)
 Sun Olin Unit
 Tank Farm
 VGO Hydrotreating Unit

009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.640]**Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
 Applicability and designation of affected source.**

(a) As per 40 C.F.R. §63.640(p)(1), after the compliance dates specified in 40 C.F.R. §63.640(h), equipment leaks that are also subject to the provisions of 40 C.F.R. Parts 60 and 61 standards promulgated before September 4, 2007, are required to comply only with the provisions specified in this subpart.

(b) As per 40 C.F.R. §63.640(q), for overlap of subpart CC with State regulations (25 Pa. Code §129.58), DEP allows consolidation of the monitoring, recordkeeping, and reporting requirements under this subpart with the monitoring, recordkeeping, and reporting requirements under other applicable requirements in 40 C.F.R. parts 60, 61, or 63, and in any 40 C.F.R. part 52 approved State implementation plan.

010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.648]**Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
 Equipment leak standards.**

As per 40 C.F.R. §60.482-1,

**SECTION D. Source Level Requirements**

(a) The permittee shall demonstrate compliance with the requirements of 40 C.F.R. §§60.482-1 through 60.482-10 for all equipment within 180 days of initial startup.

(b) Compliance with 40 C.F.R. §§60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 C.F.R. §60.485.

011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]

Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Reporting and recordkeeping requirements.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.512.]

The permittee shall comply with the recordkeeping and reporting provisions in (a) through (f) of this condition.

(a) 40 CFR §§ 60.486 and 60.487, except as specified (a)(1) of this condition; or 40 CFR §§ 63.181 and 63.182, except for 40 CFR § 63.182(b), (c)(2), and (c)(4).

(1) The signature of the permittee (or designate) whose decision it was that a repair could not be effected without a process shutdown is not required to be recorded. Instead, the name of the person whose decision it was that a repair could not be effected without a process shutdown shall be recorded and retained for 2 years.

(b) The Notification of Compliance Status report required by 40 CFR § 63.182(c) and the initial semiannual report required by 40 CFR § 60.487(b) shall be submitted within 150 days of the compliance date specified in 40 CFR § 63.640(h).

(c) The permittee who determines that a compressor qualifies for the hydrogen service exemption in 40 CFR § 63.648 shall also keep a record of the demonstration required by 40 CFR § 63.648.

(d) The permittee must keep a list of identification numbers for valves that are designated as leakless per 40 CFR § 63.648(c)(10).

(e) The permittee must identify, either by list or location (area or refining process unit), equipment in organic HAP service less than 300 hours per year within refining process units subject to 40 CFR, Subpart FF.

(f) The permittee must keep a list of reciprocating pumps and compressors determined to be exempt from the seal requirements as per 40 CFR § 63.648(f) and (i).

(g) The permittee, who wishes to use an alternative monitoring method, shall submit an application to DEP as described in 40 CFR §§ 63.8(f)(4)(ii) and 63.654(h).

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

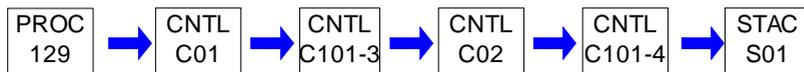
Source ID: 129

Source Name: DISULFIDE OXIDIZER SEPARATOR VENT

Source Capacity/Throughput:

1.000 Gal/HR

PETROLEUM PRODUCTS

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.643]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Miscellaneous process vent provisions.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.511.]

In accordance with 40 CFR §63.643(b), the vent stream shall be introduced into the combustion zone of CO Boiler (Source ID C01) to reduce organic HAP emissions by 98 weight-percent or to a concentration of 20 ppmv on a dry basis, corrected to 3% oxygen, whichever is less stringent.

II. TESTING REQUIREMENTS.**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.645]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Test methods and procedures for miscellaneous process vents.**

The permittee shall comply with the applicable test methods and procedures specified in 40 C.F.R. §63.645.

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.**# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Reporting and recordkeeping requirements.**

As per 40 C.F.R. §63.655(i)(5), the information required to be reported under 40 C.F.R. §63.655(h)(1) shall be retained for 5 years.

V. REPORTING REQUIREMENTS.**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Reporting and recordkeeping requirements.**

As per 40 C.F.R. §63.655(h)(1), the permittee shall submit reports of startup, shutdown, and malfunction required by 40 C.F.R. §63.10(d)(5).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).



SECTION D. Source Level Requirements

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

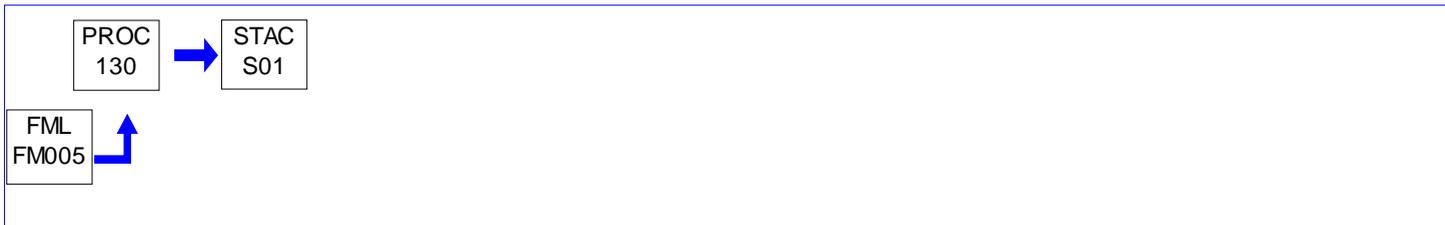
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 130

Source Name: PEABODY HEATER

Source Capacity/Throughput: 74.000 MMBTU/HR
74.000 MCF/HR NATURAL GAS

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from this process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

002 [25 Pa. Code §123.21]

General

No person may permit the emission into the outdoor atmosphere of sulfur oxides from this source in a manner that the concentration of the sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

Fuel Restriction(s).

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The source shall fire natural gas only.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall monitor for this source:

- (a) The operating hours; and
- (b) The amount of fuel consumed using either a fuel flow meter, or based on the operating hours and maximum heat input.

IV. RECORDKEEPING REQUIREMENTS.

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep the following records of this source:

- a. The operation hours each day the source is operating.
- b. The amount of fuel consumed each day the source is operating, using a flow meter, or based on the operating hours and maximum heater input.
- c. The average firing rate in MMBtu/hr each month and each 12 consecutive month period.

**SECTION D. Source Level Requirements****V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

(a) This source shall only be used during FCC unit (Source ID 101) start-up.

(b) RACT for this source is that the heater shall be operated and maintained in accordance with manufacturer's specifications and in accordance with good air pollution control practices.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: 131

Source Name: AWWTP EMERGENCY GENERATOR

Source Capacity/Throughput: 100.000 Gal/HR Diesel Fuel

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

**# 001 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The permittee shall calculate the difference between the actual emissions from the unit for the Generator during the period from May 1 through September 30 and the allowable emissions for that period.

V. REPORTING REQUIREMENTS.

**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6645]
Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
What notifications must I submit and when?**

The permittee must submit an initial notification that shall include the information in §63.9(b)(2)(i) through (v), and a statement that the stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

**# 003 [25 Pa. Code §129.203]
Stationary internal combustion engines.**

(a) The permittee shall calculate the difference between the actual emissions from the unit during the period from May 1 through September 30 and the allowable emissions for that period.

(b) The permittee shall calculate allowable emissions by multiplying the cumulative hours of operations for the unit for the

**SECTION D. Source Level Requirements**

period by the horsepower rating of the unit and by the applicable emission rate set forth in paragraph (1) or (2) below:

(1) For a spark-ignited engine, 3.0 grams of NO_x per brake horsepower-hour.

(2) For a compression ignition stationary internal combustion engine firing diesel fuel or a combination of diesel fuel and natural gas, 2.3 grams of NO_x per brake horsepower-hour.

(c) Emissions from a stationary internal combustion engine that has been or is replaced by an electric motor may be counted as allowable emissions for purposes of this section and 25 Pa. Code §129.204, as follows:

(1) For a replaced spark-ignited engine, 3.0 grams of NO_x per brake horsepower-hour of the replacement motor, less 1.5 pounds of NO_x per MWH of electricity consumed by the replacement motor.

(2) For a replaced compression ignition stationary internal combustion engine that fired diesel fuel or a combination of diesel fuel and natural gas, 2.3 grams of NO_x per brake horsepower-hour, less 1.5 pounds of NO_x per MWH of electricity consumed by the replacement motor.

004 [25 Pa. Code §129.204]

Emission accountability.

(a) The permittee shall determine actual emissions in accordance with one of the following:

(1) The 1-year average emission rate calculated from the most recent permit emission limit compliance demonstration test data for NO_x.

(2) The maximum hourly allowable NO_x emission rate contained in the permit or the higher of the following:

(A) The highest rate determined by use of the emission factor for the unit class contained in the most up-to date version of the EPA publication, "AP-42 Compilation of Air Pollution Emission Factors."

(B) The highest rate determined by use of the emission factor for the unit class contained in the most up-to date version of EPA's "Factor Information Retrieval (FIRE)" data system.

(C) An alternate calculation and recordkeeping procedure based upon emissions testing and correlations with operating parameters. The permittee shall demonstrate that the alternate procedure does not underestimate actual emissions throughout the allowable range of operating conditions. The alternate calculation and recordkeeping procedures must be approved by the Department, in writing, prior to implementation.

(b) The permittee shall surrender to the Department one NO_x allowance, as defined in 25 Pa. Code §145.2 (relating to definitions), for each ton of NO_x by which the combined actual emissions exceed the allowable emissions of the units subject to this section at a facility from May 1 through September 30. The surrendered NO_x allowances shall be of current year vintage. For the purpose of determining the amount of allowances to surrender, any remaining fraction of a ton equal to or greater than 0.50 ton is deemed to equal 1 ton and any fraction of a ton less than 0.50 ton is deemed to equal zero tons.

(c) If the combined allowable emissions from units subject to this section at a facility from May 1 through September 30 exceed the combined actual emissions from units subject to this section at the facility during the same period, the owner or operator may deduct the difference or any portion of the difference from the amount of actual emissions from units subject to this section at the owner or operator's other facilities.

(d) By November 1 of each year thereafter, the permittee shall surrender the required NO_x allowances to the Department's designated NO_x allowance tracking system account and provide to the Department, in writing, the following:

(1) The serial number of each NO_x allowance surrendered.

(2) The calculations used to determine the quantity of NO_x allowances required to be surrendered.

(e) If the permittee fails to comply with 25 Pa. Code §129.204(e), the permittee shall by December 31 surrender three NO_x

**SECTION D. Source Level Requirements**

allowances of the current or later year vintage for each NOx allowance that was required to be surrendered by November 1 of that year.

(f) The surrender of NOx allowances under subsection 25 Pa. Code §129.204(f) does not affect the liability of the permittee for any fine, penalty or assessment, or an obligation to comply with any other remedy for the same violation, under the CAA or the act.

(1) For purposes of determining the number of days of violation, if a facility has excess emissions for the period May 1 through September 30, each day in that period (153 days) constitutes a day in violation unless the permittee demonstrates that a lesser number of days should be considered.

(2) Each ton of excess emissions is a separate violation.

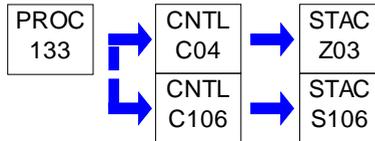
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 133

Source Name: BENZENE WASTE OPERATIONS

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.**# 001 [40 CFR Part 61 NESHAPs §40 CFR 61.355]****Subpart FF--National Emission Standard for Benzene Waste Operations
Test methods, procedures, and compliance provisions.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall comply with the requirements of 40 C.F.R. § 61.342(c), or the alternative compliance provisions specified in 40 C.F.R. § 61.342(d) or (e).

III. MONITORING REQUIREMENTS.**# 002 [40 CFR Part 61 NESHAPs §40 CFR 61.343]****Subpart FF--National Emission Standard for Benzene Waste Operations
Standards: Tanks.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

Each fixed-roof, seal, access door, and all other opening shall be checked by visual inspection, initially and quarterly thereafter, to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly.

003 [40 CFR Part 61 NESHAPs §40 CFR 61.345]**Subpart FF--National Emission Standard for Benzene Waste Operations
Standards: Containers.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

Each cover and all openings for containers subject to 40 C.F.R. 61, Subpart FF, shall be visually inspected, initially and quarterly thereafter, to ensure that they are closed and gasketed properly.

004 [40 CFR Part 61 NESHAPs §40 CFR 61.354]**Subpart FF--National Emission Standard for Benzene Waste Operations
Monitoring of operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

Except for a treatment process or waste stream complying with 40 C.F.R. § 61.348(d), the permittee shall monitor each treatment process or wastewater treatment system unit to ensure the unit is properly operated and maintained by one of the following procedures:

(a) Measure the benzene concentration of the waste stream exiting the treatment process complying with 40 C.F.R. §61.348(a)(1)(i) at least once per month by collecting and analyzing one or more samples using the procedures specified in 40 C.F.R. §61.355(c)(3).

(b) Operate, calibrate, and maintain according to manufacturer's specifications equipment to continuously monitor and record a process parameter(s) for the treatment process or wastewater treatment system unit that indicated proper system

**SECTION D. Source Level Requirements**

operation. The permittee shall inspect at least once each operating day the data recorded by the monitoring equipment to ensure that the unit is operating properly.

IV. RECORDKEEPING REQUIREMENTS.**# 005 [40 CFR Part 61 NESHAPs §40 CFR 61.356]****Subpart FF--National Emission Standard for Benzene Waste Operations
Recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) When transferring waste offsite to another facility for treatment in accordance with 40 C.F.R. § 61.342(f), the permittee shall maintain documentation for each offsite waste shipment that includes the following information: Date waste is shipped offsite, quantity of waste shipped offsite, name and address of the facility receiving the waste, and a copy of the notice sent with the waste shipment.

(b) When control equipment is used in accordance with 40 C.F.R. §§61.343 through 347, the permittee shall maintain the engineering design documentation for all control equipment that is installed on the waste management unit. The documentation shall be retained for the life of the control equipment.

(c) For any treatment process or wastewater treatment system in accordance with 40 C.F.R. §61.348, the permittee shall retain, for the life of the unit, a signed statement by the permittee certifying that the unit is designed to operate at the documented performance level when the waste stream entering the unit is at the highest waste stream flow rate and benzene content expected to occur.

(d) The permittee shall maintain a record for each visual inspection required by 40 C.F.R. §§61.343 through 347 that identifies a problem which could result in benzene emissions. The record shall include the date of the inspection, waste management unit and control equipment location where the problem is identified, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed.

006 [40 CFR Part 61 NESHAPs §40 CFR 61.356]**Subpart FF--National Emission Standard for Benzene Waste Operations
Recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall maintain records that identify each waste stream at the facility subject to 40 C.F.R. 61, Subpart FF, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with 40 C.F.R. 61, Subpart FF. In addition, the following records shall be maintained:

(a) For each waste stream not controlled for benzene emissions in accordance with 40 C.F.R. 61, Subpart FF, the records shall include all test results, measurements, calculations, and other documentation used to determine the following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.

(b) For each waste stream exempt from 40 C.F.R. §61.342(c)(1) in accordance with 40 C.F.R. §61.342(c)(3), the records shall include all measurements, calculations, and other documentation used to determine that the sum of the total annual benzene quantity in all exempt waste streams does not exceed 2.0 Mg/yr in accordance with 40 C.F.R. §61.342(c)(3)(ii).

(c) Where waste streams are controlled for benzene emissions in accordance with 40 C.F.R. §61.342(e), the records shall include for each waste stream all measurements, including the locations of the measurements, calculations, and other documentation used to determine that the total benzene quantity does not exceed 6.0 Mg/yr.

007 [40 CFR Part 61 NESHAPs §40 CFR 61.356]**Subpart FF--National Emission Standard for Benzene Waste Operations
Recordkeeping requirements.**

**SECTION D. Source Level Requirements**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) The permittee shall maintain a record of each test of no detectable emissions required by 40 C.F.R. §§61.343 through 347 and 61.349. The record shall include the following information:

- (1) The date the test was performed,
- (2) The background level measured during test, and,
- (3) The maximum concentration indicated by the instrument reading measured for each potential leak interface.

(b) If detectable emissions are measured at a leak interface, then the record shall also include the waste management unit, control equipment, and the leak interface location where detectable emissions were measured, a description of the problem, a description of the corrective action taken and the date the corrective action was completed.

(c) For each treatment process and wastewater treatment system unit operated to comply with 40 C.F.R. §61.348, the permittee shall maintain documentation that includes the following information regarding the unit shutdown:

- (1) Dates of startup and shutdown of the unit.
- (2) If the measurements of waste stream benzene concentration are performed in accordance with 40 C.F.R. §61.354(a)(1), the permittee shall maintain records that include the date each test is performed and all test results.
- (3) If a process parameter(s) is continuously monitored in accordance with 40 C.F.R. §61.354(a)(2), the permittee shall maintain records that include a description of the operating parameter(s) to be maintained to ensure that the unit will be operated in conformance with these standards and the unit's design specifications, and an explanation of the criteria used for selection of that parameter(s). This documentation shall be kept for the life of the unit.

(4) Periods when the unit is not operated as designed.

(d) The permittee who elects to install and operate the control equipment in 40 C.F.R. §61.351 shall comply with the record keeping requirements in 40 C.F.R. §60.115b.

V. REPORTING REQUIREMENTS.

008 [40 CFR Part 61 NESHAPs §40 CFR 61.357]

Subpart FF--National Emission Standard for Benzene Waste Operations Reporting requirements.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) The following reports shall be submitted to the Administrator:

(1) Beginning on the date that the equipment necessary to comply with these standards has been certified, the permittee shall submit, annually to the Administrator, a report that updates the information listed in 40 C.F.R. §§61.357(a)(1) through (3) is not changed in the following year, the permittee may submit a statement to that effect.

(2) If the permittee elects to comply with the requirements of 40 C.F.R. §61.342(c)(3)(ii), then the report required by (a)(1), above, shall include a table identifying each waste stream chosen for exemption and the total annual benzene quantity in these exempted streams.

(3) If the permittee elects to comply with the alternative requirements of 40 C.F.R. §61.342(d), then the report required by 40 C.F.R. §§61.357(d)(2), shall include a table presenting the following information for each waste stream:

(i) For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of 40 C.F.R. 61, Subpart FF; the table shall report the following information for the waste stream as determined at the point of waste generation: Annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.

SECTION D. Source Level Requirements

(ii) For each waste stream identified as being controlled for benzene emissions in accordance with the requirements of 40 C.F.R. 61, Subpart FF; the table shall report the following information for the waste stream as determined at the applicable location described in 40 C.F.R. §61.355(k)(2): Annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.

(b) Beginning three (3) months after the date that the equipment necessary to comply with these standards had been certified in accordance with (a)(1), above, the permittee shall submit quarterly to the Administrator a certification that all of the required inspections have been carried out in accordance with the requirements of 40 C.F.R. 61, Subpart FF.

(c) Beginning three (3) months after the date that the equipment necessary to comply with these standards has been certified, the permittee shall submit a quarterly report to the Administrator that includes if the treatment process is monitored in accordance with 40 C.F.R. §61.354(a)(1), then each period of operation during which the concentration of benzene in the monitored waste stream exiting the unit is equal to or greater than 10 ppmw.

(d) Beginning one year after the date that the equipment necessary to comply with these standards had been certified in accordance with 40 C.F.R. §§61.357(d)(1), the permittee shall submit annually, to the Administrator, a report that summarizes all inspections required by 40 C.F.R. §§61.342 through 354 during which detectable emissions are measured or a problem that could result in benzene emissions is identified, including information about the repairs or corrective action taken.

VI. WORK PRACTICE REQUIREMENTS.**# 009 [25 Pa. Code §129.55]
Petroleum refineries--specific sources**

This condition applies only to the wastewater separator located in the Advanced Waste Water Treatment Plant (AWWTP).

No person may permit the use of a compartment of a single or multiple compartment volatile organic compound wastewater separator which compartment receives effluent water containing 200 gallons a day or more of any volatile organic compound from equipment processing, refining, treating, storing, or handling volatile organic compounds unless the compartment is equipped with one of the following vapor loss control devices--properly installed, in good working order, and in operation--as follows:

(a) A container having all openings sealed and totally enclosing the liquid contents. Gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(b) A container equipped with a floating roof--consisting of a pontoon-type roof, double-deck-type roof, or internal floating cover--which will rest on the surface of the contents and be equipped with closure seal or seals to close the space between the roof edge and container wall. Gauging and sampling devices shall be gas tight except when gauging or sampling is taking place.

**# 010 [40 CFR Part 61 NESHAPs §40 CFR 61.342]
Subpart FF--National Emission Standard for Benzene Waste Operations
Standards: General.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall include the following benzene quantities in their calculations:

(a) Wastes that are exempted from control under 40 C.F.R. §61.342(c)(2) and (3) are included in the calculation of the total annual benzene quantity if they have an annual average water content greater than 10%, or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than 10%.

(b) The benzene in a material subject to 40 C.F.R. 61, Subpart FF, that is sold shall be included in the calculation of the total annual benzene quantity if the material has an annual average water content greater than 10%.

(c) Benzene in wastes generated by remediation activities conducted at the facility, such as the excavation of contaminated soil, pumping and treatment of groundwater, and the recovery of product from soil or groundwater, are not to be included in

**SECTION D. Source Level Requirements**

the calculation of total annual benzene quantity for the facility. If the facility's total annual benzene quantity is greater than 10 Mg/yr or greater, wastes generated by remediation activities are subject to the requirements of 40 C.F.R. §61.342(c)-(h).

011 [40 CFR Part 61 NESHAPs §40 CFR 61.342]**Subpart FF--National Emission Standard for Benzene Waste Operations****Standards: General.**

[Additional authority for this permit condition is also derived from 25 Pa. Code §127.441.]

The permittee shall manage and treat facility waste (including remediation and process unit turnaround waste) with a flow-weighted annual average water content of 10% or greater, on a volume basis as total water, and each waste stream that is mixed with water or wastes at any time such that the resulting mixture has an annual water content greater than 10%, in accordance with the following:

(1) The benzene quantity for the wastes described in 40 C.F.R. §61.342(b), must be equal to or less than 6.0 Mg/yr, as determined in 40 C.F.R. §61.355(k). Wastes as described in this condition that are transferred offsite shall be included in the determination of benzene quantity as provided in 40 C.F.R. §61.355(k).

(2) The determination of benzene quantity for each waste stream defined in this condition shall be made in accordance with 40 C.F.R. §61.355(k).

012 [40 CFR Part 61 NESHAPs §40 CFR 61.343]**Subpart FF--National Emission Standard for Benzene Waste Operations****Standards: Tanks.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For a tank that meets all the conditions specified in (a), below, the permittee may elect to comply with (c), below, as an alternative to the requirements specified in 40 C.F.R. §61.343(a)(1).

(a) The waste managed in the tank applicable to 40 C.F.R. §61.343, shall meet all of the following conditions:

(1) Each waste stream managed in the tank must have a flow-weighted annual average water content less than or equal to 10% water, on a volume basis as total water.

(2) The waste managed in a tank either:

(i) Has a maximum organic vapor pressure less than 0.75 psi;

(ii) Has a maximum organic vapor pressure less than 4.0 psi and is managed in a tank having a design capacity less than 40,000 gal; or

(iii) Has a maximum organic vapor pressure less than 11.1 psi and is managed in a tank having a design capacity less than 20,000 gal.

(b) The permittee shall operate and maintain a fixed roof as specified in 40 C.F.R. §61.343(a)(1)(i).

(c) For each tank complying with this subcondition (a) above, one or more devices which vent directly to the atmosphere may be used on the tank provided each device remains in a closed, sealed position during normal operation except when the device needs to vent to prevent physical damage or permanent deformation of the tank or cover resulting from filling or emptying the tank, diurnal temperature changes, atmospheric pressure changes or malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive or other hazardous materials.

013 [40 CFR Part 61 NESHAPs §40 CFR 61.343]**Subpart FF--National Emission Standard for Benzene Waste Operations****Standards: Tanks.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

**SECTION D. Source Level Requirements**

Except as provided in (a) or (b) below, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but no later than 45 calendar days after identification.

(a) Delay of repair of facilities or units that are subject to the provisions of 40 C.F.R. 61, Subpart FF, will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown.

(b) Repair of such equipment shall occur before the end of the next facility or unit shutdown.

014 [40 CFR Part 61 NESHAPs §40 CFR 61.343]**Subpart FF--National Emission Standard for Benzene Waste Operations Standards: Tanks.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

Except as provided in 40 C.F.R. §61.343(b) and in 40 C.F.R. §61.351, the permittee shall meet the following standards for each tank in which the waste stream is placed in accordance with 40 C.F.R. §61.342(c)(1)(ii). The standards to tanks apply to the treatment of the waste stream in a tank, including dewatering.

The permittee shall operate and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device.

(a) The fixed-roof tanks shall meet the following requirements:

(1) The cover and all openings shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 C.F.R. §61.355(h).

(2) Each opening shall be maintained in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance or repair.

(3) If the cover and closed vent-system operate such that the tank is maintained at a pressure less than atmospheric pressure, then 40 C.F.R. §61.334(a)(1)(i)(b) does not apply to any opening that meets all of the following conditions:

(i) The purpose of the opening is to provide dilution air to reduce the explosion hazard;

(ii) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and at least once per year thereafter by the methods specified in 40 C.F.R. §61.355(h), and;

(iii) The pressure is monitored continuously to ensure that the pressure in the tank remains below atmospheric pressure.

(b) The closed-vent system and control device shall be designed and operated in accordance with the requirements of 40 C.F.R. §61.349.

015 [40 CFR Part 61 NESHAPs §40 CFR 61.345]**Subpart FF--National Emission Standard for Benzene Waste Operations Standards: Containers.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall meet the following standards for each container in which regulated benzene waste is placed in accordance with 40 C.F.R. §61.342(c)(1)(ii):

(a) A cover shall be installed, operated, and maintained on each container used to handle, transfer, or store waste in accordance with the following:

(1) The cover and all openings shall be designed to operate with no detectable emissions as indicated by an instrument

**SECTION D. Source Level Requirements**

reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in 40 C.F.R. §61.355(h).

(2) Except as provided in 40 C.F.R. §61.345(a)(4), each opening shall be maintained in a closed, sealed position at all times that waste is in the container except when it is necessary to use the opening for waste loading, removal, inspection, or sampling.

(b) When a waste is transferred into a container by pumping, the permittee shall perform the transfer using a submerged fill pipe. The fill pipe outlet shall extend to within two fill pipe diameters of the bottom of the container while the container is being loaded. During loading of the waste, the cover shall remain in place and all openings shall be maintained in a closed, sealed position except for those openings required for the submerged fill pipe, those openings required for venting of the container to prevent physical damage or permanent deformation of the container or cover, and any openings complying with 40 C.F.R. §61.345(a)(4).

(c) Treatment of a waste in a container, including aeration, thermal or other treatment, shall be performed by the permittee in a manner such that whenever it is necessary for the container to be open while the waste is being treated, the container is located under a cover (enclosure) with a closed-vent system that routes all organic vapors vented from the container to a control device, except for the cover and closed-vent system that meet requirements in 40 C.F.R. §61.345(a)(4).

(1) The cover and all openings shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially, and thereafter at least once per year by the methods specified in 40 C.F.R. §61.355(h).

(2) The closed-vent system and control device shall be designed and operated in accordance with 40 C.F.R. §61.349.

016 [40 CFR Part 61 NESHAPs §40 CFR 61.345]**Subpart FF--National Emission Standard for Benzene Waste Operations Standards: Containers.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For covers and closed-vent systems that operate such that the container is maintained at a pressure less than atmospheric, the permittee may operate the system with an opening that is not sealed and kept closed at all times if the following conditions are met:

(a) The purpose of the opening is to provide dilution air to reduce the explosion hazard;

(b) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by methods specified in 40 C.F.R. §61.355(h); and

(c) The pressure is monitored continuously to ensure that the pressure in the container remains below atmospheric pressure.

017 [40 CFR Part 61 NESHAPs §40 CFR 61.348]**Subpart FF--National Emission Standard for Benzene Waste Operations Standards: Treatment processes.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) Each seal, access door and all other opening shall be checked by visual inspections initially and quarterly thereafter to ensure that no cracks or gaps occur and that openings are closed and gasketed properly.

(b) If the treatment process or wastewater treatment system unit has any openings, all such openings shall be sealed and kept closed at all times when waste is being treated, except during inspection and maintenance.

018 [40 CFR Part 61 NESHAPs §40 CFR 61.348]

**SECTION D. Source Level Requirements****Subpart FF--National Emission Standard for Benzene Waste Operations
Standards: Treatment processes.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

Except as provided in (d) below, the permittee shall treat the waste stream in accordance with the following requirements:

- (a) The permittee shall operate and maintain a treatment process that removes benzene from the waste stream to a level less than 10 ppmw on a flow-weighted annual average basis.
- (b) For the purpose of complying with the requirements specified in (a), above, the intentional or unintentional reduction in the benzene concentration of a waste stream by dilution of the waste stream with other wastes or materials is not allowed.
- (c) The permittee may aggregate or mix together individual waste streams to create a combined waste stream for the purpose of facilitating treatment of waste to comply with the requirements of (a), above, except as provided in (d), below.
- (d) If the permittee aggregates or mixes any combination of process wastewater or product tank drawdown subject to 40 C.F.R. §61.342(c)(1) together with other waste streams to create a combined waste stream for the purpose of facilitating management or treatment of waste in a wastewater treatment system, then the wastewater treatment system shall be operated in accordance with 40 C.F.R. §61.348(b). The provisions of this condition apply to above-ground wastewater treatment systems as well as those that are at or below ground level.

019 [40 CFR Part 61 NESHAPs §40 CFR 61.350]**Subpart FF--National Emission Standard for Benzene Waste Operations
Standards: Delay of repair.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

- (a) Delay of repair of facilities or units that are subject to the provisions of 40 C.F.R. 61, Subpart FF will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown.
- (b) Repair of such equipment shall occur before the end of the next facility or unit shutdown.

020 [40 CFR Part 61 NESHAPs §40 CFR 61.351]**Subpart FF--National Emission Standard for Benzene Waste Operations
Alternative standards for tanks.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

- (a) As an alternative to the standards for tanks specified in 40 C.F.R. §61.343, the permittee may elect to comply with one of the following:
 - (1) A fixed roof and internal floating roof meeting the requirements in 40 C.F.R. §60.112b(a)(1);
 - (2) An external floating roof meeting the requirements in 40 C.F.R. §60.112b(a)(2);
 - (3) An alternative means of emission limitation as described in 40 C.F.R. §60.114b.
- (b) If the permittee elects to comply with the provisions of this condition, then the permittee is exempt from the provisions of 40 C.F.R. §61.343.

021 [40 CFR Part 61 NESHAPs §40 CFR 61.355]**Subpart FF--National Emission Standard for Benzene Waste Operations
Test methods, procedures, and compliance provisions.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The total annual benzene quantity, from facility waste, shall be calculated according to the applicable requirements of 40 C.F.R. §61.355, and Conditions #005 and 006, for this source.

**SECTION D. Source Level Requirements**

022 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.647]
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Wastewater provisions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

As specified in 40 C.F.R. §63.647, each Group 1 wastewater stream shall comply with the requirements of 40 C.F.R. §§61.340 through 61.355, for each process wastewater stream that meets the definition in 40 C.F.R. §61.341.

VII. ADDITIONAL REQUIREMENTS.

023 [40 CFR Part 61 NESHAPs §40 CFR 61.345]
Subpart FF--National Emission Standard for Benzene Waste Operations
Standards: Containers.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

Except as provided in (a) or (b), below, when a broken seal, gasket, or other problem is identified, first efforts at repair shall be made as soon as practicable but not later than fifteen (15) calendar days after indication.

(a) Delay of repair of facilities or units that are subject to the provisions of 40 C.F.R. 61, Subpart FF, will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown.

(b) Repair of such equipment shall occur before the end of the next facility or unit shutdown.

024 [40 CFR Part 61 NESHAPs §40 CFR 61.348]
Subpart FF--National Emission Standard for Benzene Waste Operations
Standards: Treatment processes.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The Administrator may request at any time the permittee demonstrate that a treatment process or wastewater treatment system unit meets the applicable requirements specified in 40 C.F.R. §61.348(a)(1) by collecting and analyzing samples using the procedures specified in 40 C.F.R. §61.355(c)(3).

025 [40 CFR Part 61 NESHAPs §40 CFR 61.353]
Subpart FF--National Emission Standard for Benzene Waste Operations
Alternative means of emission limitation.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in benzene emissions at least equivalent to the reduction in benzene emissions from the source achieved by the applicable design, equipment, work practice, or operational requirements in 40 C.F.R. §§61.342 through 349, the Administrator will publish in the Federal Register a notice permitting the use of the alternative means for the purposes of compliance with that requirement. The notice may condition the permission on requirements related to the operation and maintenance of the alternative means.

(b) Any notice under (a), above, shall be published only after a public notice and an opportunity for a hearing.

(c) Any person seeking permission under this condition shall collect, verify, and submit to the Administrator information showing that the alternative means achieves equivalent emission reductions.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

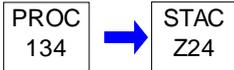
Source ID: 134

Source Name: #132 INT.FLOAT 15M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T001 (MACT Group 1, Internal Floating Roof Tanks), or Source T003 (MACT Group 2 Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

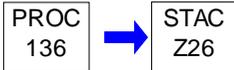
Source ID: 136

Source Name: #151 EXT.FLOAT 53M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T002 (MACT Group 1, External Floating Roof Tanks), or Source T003 (MACT Group 2 Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

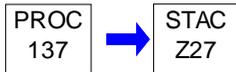
Source ID: 137

Source Name: #152 INT. FLOAT 61M BBL

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T001 (MACT Group 1, Internal Floating Roof Tanks), or Source T003 (MACT Group 2 Tanks), as applicable.

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

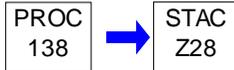
Source ID: 138

Source Name: #153 EXT.FLOAT 53M BBLS

Source Capacity/Throughput:

N/A

TVP < 1.5 PSIA

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Total VOC emissions from this source shall not exceed 0.7 tons in any 12 consecutive month period.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

(a) The permittee shall keep records of type of material, and throughput on a monthly basis.

(b) The permittee shall calculate VOC emissions from this tank, using a Department approved method, to demonstrate compliance with the 12 consecutive month total.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T002 (MACT Group 1, External Floating Roof Tanks), or Source T003 (MACT Group 2 Tanks), as applicable.

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

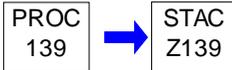
Source ID: 139

Source Name: #154A INT. FLOAT 105M BBLS

Source Capacity/Throughput:

N/A

TVP < 13.0 PSIA

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Total VOC emissions from this source shall not exceed 4.0 tons in any 12 consecutive month period.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Throughput type, and amount, shall be recorded on a monthly basis.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall calculate VOC emissions from this tank, using a Department approved method, to demonstrate compliance with the 12 consecutive month total.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Additional applicable requirements for this source can be found in Source T007 (Internal Floating Roof NSPS Kb Tanks).

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

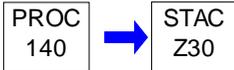
Source ID: 140

Source Name: #155 INT. FLOAT 63M BBLS.

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

**# 001 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The applicable requirements for this source can be found in Source T001 (MACT Group 1, Internal Floating Roof Tanks), or Source T003 (MACT Group 2 Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

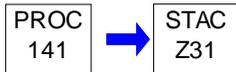
Source ID: 141

Source Name: #156 EXT.FLOAT 53M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T002 (MACT Group 1, External Floating Roof Tanks), or Source T003 (MACT Group 2 Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

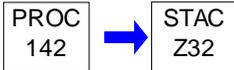
Source ID: 142

Source Name: #157 EXT.FLOAT 77M BBLS

Source Capacity/Throughput:

N/A

TVP < 1.5 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T002 (MACT Group 1, External Floating Roof Tanks), or Source T003 (MACT Group 2 Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

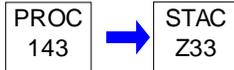
Source ID: 143

Source Name: #159 EXT.FLOAT 79M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

**# 001 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The applicable requirements for this source can be found in Source T002 (MACT Group 1, External Floating Roof Tanks), or Source T003 (MACT Group 2 Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

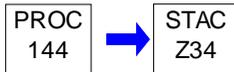
Source ID: 144

Source Name: #161 EXT.FLOAT 86M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T002 (MACT Group 1, External Floating Roof Tanks), or Source T003 (MACT Group 2 Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

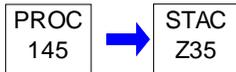
Source ID: 145

Source Name: #162 EXT.FLOAT 82M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

**# 001 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks), Source T004 (State-Only External Floating Roof Tanks), or Source T002 (MACT Group 1, External Floating Roof Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

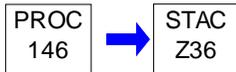
Source ID: 146

Source Name: #163 EXT.FLOAT 82M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks), Source T004 (State-Only External Floating Roof Tanks), or Source T002 (MACT Group 1, External Floating Roof Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

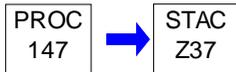
Source ID: 147

Source Name: #164 EXT.FLOAT 83M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks), Source T004 (State-Only External Floating Roof Tanks), or Source T002 (MACT Group 1, External Floating Roof Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

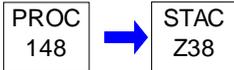
Source ID: 148

Source Name: #165 EXT.FLOAT 82M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks), Source T004 (State-Only External Floating Roof Tanks), or Source T002 (MACT Group 1, External Floating Roof Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

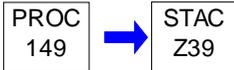
Source ID: 149

Source Name: #166 EXT.FLOAT 83M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks), Source T004 (State-Only External Floating Roof Tanks), or Source T002 (MACT Group 1, External Floating Roof Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

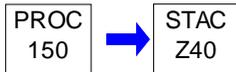
Source ID: 150

Source Name: #168 INT. FLOAT 79M BBLS.

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

**# 001 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The applicable requirements for this source can be found in Source T001 (MACT Group 1, Internal Floating Roof Tanks), or Source T003 (MACT Group 2 Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

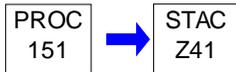
Source ID: 151

Source Name: #169 EXT.FLOAT 78M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T002 (MACT Group 1, External Floating Roof Tanks), or Source T003 (MACT Group 2 Tanks), as applicable.

***** Permit Shield in Effect. *****



SECTION D. Source Level Requirements

Source ID: 152

Source Name: #170 EXT.FLOAT 71M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

**# 001 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The applicable requirements for this source can be found in Source T005 (External Floating Roof, NSPS Kb Tanks).

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

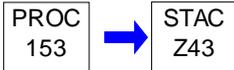
Source ID: 153

Source Name: #171 INT. FLOAT 83M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

**# 001 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The applicable requirements for this source can be found in Source T001 (MACT Group 1, Internal Floating Roof Tanks).

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

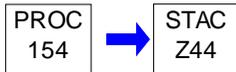
Source ID: 154

Source Name: #172 EXT.FLOAT 81M BBLS

Source Capacity/Throughput:

N/A

TVP < 1.5 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

**# 001 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The applicable requirements for this source can be found in Source T002 (MACT Group 1, External Floating Roof Tanks), or Source T003 (MACT Group 2 Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

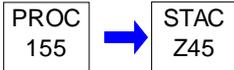
Source ID: 155

Source Name: #174 EXT.FLOAT 154M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks), Source T004 (State-Only External Floating Roof Tanks), or Source T002 (MACT Group 1, External Floating Roof Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

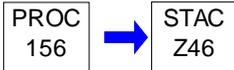
Source ID: 156

Source Name: #175 EXT.FLOAT 151M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks), Source T004 (State-Only External Floating Roof Tanks), or Source T002 (MACT Group 1, External Floating Roof Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

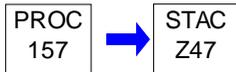
Source ID: 157

Source Name: #178 EXT.FLOAT 80M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks), Source T004 (State-Only External Floating Roof Tanks), or Source T002 (MACT Group 1, External Floating Roof Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

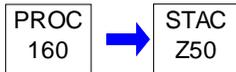
Source ID: 160

Source Name: #181 EXT.FLOAT 129M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks), Source T004 (State-Only External Floating Roof Tanks), or Source T002 (MACT Group 1, External Floating Roof Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

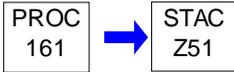
Source ID: 161

Source Name: #182 EXT.FLOAT 129M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks), Source T004 (State-Only External Floating Roof Tanks), or Source T002 (MACT Group 1, External Floating Roof Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

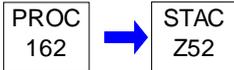
Source ID: 162

Source Name: #184 EXT.FLOAT 26M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

**# 001 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The applicable requirements for this source can be found in Source T005 (External Floating Roof, NSPS Kb Tanks).

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

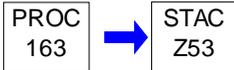
Source ID: 163

Source Name: #185 EXT.FLOAT 150M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks), Source T004 (State-Only External Floating Roof Tanks), or Source T002 (MACT Group 1, External Floating Roof Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

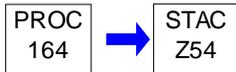
Source ID: 164

Source Name: #186 EXT.FLOAT 151M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks), Source T004 (State-Only External Floating Roof Tanks), or Source T002 (MACT Group 1, External Floating Roof Tanks), as applicable.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

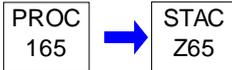
Source ID: 165

Source Name: #93 EXT.FLOAT 244M BBL

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Total VOC emissions from this source shall not exceed 6.5 tons in any 12 consecutive month period.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

(a) Throughput type and amount shall be recorded on a monthly basis.

(b) The permittee shall calculate VOC emissions from this tank, using a Department approved method, to demonstrate compliance with the 12 consecutive month total.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T005 (External Floating Roof, NSPS Kb Tanks).

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

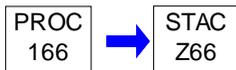
Source ID: 166

Source Name: #94 EXT.FLOAT 243M BBL

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Total VOC emissions from this source shall not exceed 6.5 tons in any 12 consecutive month period.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Throughput type, and amount, shall be recorded on a monthly basis.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall calculate VOC emissions from this tank, using a Department approved method, to demonstrate compliance with the 12 consecutive month total.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T005 (External Floating Roof, NSPS Kb Tanks).

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 180

Source Name: #54 CONE ROOF TK 54M BBLS

Source Capacity/Throughput:

I. RESTRICTIONS.**Emission Restriction(s).**

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

VOC emissions from Tank 54 (Source ID 180) shall not exceed 3.59 tons per 12-month rolling sum, calculated on a monthly basis.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****



SECTION D. Source Level Requirements

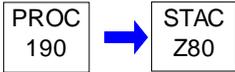
Source ID: 190

Source Name: #134 INT. FLOAT 15M BBLS

Source Capacity/Throughput:

N/A

TVP < 11.1 PSIA



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

**# 001 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The applicable requirements for this source can be found in Source T007 (Internal Floating Roof NSPS Kb Tanks).

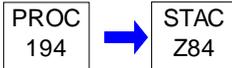
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 194

Source Name: #160 INT. FLOAT 85 MBLS

Source Capacity/Throughput: 85.000 Th BBL/HR JET A KEROSENE

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

VOC emissions from this source shall not exceed 0.3 tons in any 12 consecutive month period.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall monitor and record the volatile organic liquid throughput for this storage vessel each month.

IV. RECORDKEEPING REQUIREMENTS.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep records of

(a) The volatile organic liquid throughput for this storage vessel on a monthly basis

(b) VOC emissions from this tank, calculated using the Department approved method, on a monthly basis and the 12 rolling sum.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

(a) Additional applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks).

(b) To be exempt from the Provisions of 40 C.F.R. 60 Subparts A and Kb, and 25 Pa. Code §129.56, the storage vessel shall only store volatile organic liquids with a maximum true vapor pressure less than 0.5 psia.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: 215

Source Name: NSPS NEW FUGITIVE EQUIPMENT

Source Capacity/Throughput: 8.500 Th BBL/HR CRUDE OIL



I. RESTRICTIONS.

Control Device Efficiencies Restriction(s).

**# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards.**

(1) When a valve leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 C.F.R. §60.482-9a.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards.**

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 C.F.R. §60.485a(c).

(b) (1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 C.F.R. §60.482-9a.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 C.F.R. §60.485a(c).

**# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards.**

(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume (ppmv), whichever is less stringent.

(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 ppmv, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816°C.

(d) Flares used to comply with this subpart shall comply with the requirements of §60.18.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.****# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGCa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which
Construction, Reconstruction, or Modification Commenced After November 7, 2006
Standards.**

(a) In conducting the performance tests required in 40 C.F.R. §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of 40 C.F.R. Part 60 or other methods and procedures as specified in this section, except as provided in 40 C.F.R. §60.8(b).

(b) The owner or operator shall determine compliance with the standards in 40 C.F.R. §§60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows:

(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of appendix A-7 of this part. The following calibration gases shall be used:

(i) Zero air (less than 10 ppm of hydrocarbon in air); and

(ii) A mixture of methane or n-hexane and air at a concentration no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring.

(2) A calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day. Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in Method 21 of appendix A-7 of this part, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in 40 C.F.R. §60.486a(e)(7). Calculate the average algebraic difference between the three meter readings and the most recent calibration value. Divide this algebraic difference by the initial calibration value and multiply by 100 to express the calibration drift as a percentage. If any calibration drift assessment shows a negative drift of more than 10 percent from the initial calibration value, then all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) must be re-monitored. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment since the last calibration with instrument readings above the appropriate leak definition and below the leak definition multiplied by (100 plus the percent of positive drift/divided by 100) may be re-monitored.

(c) The owner or operator shall determine compliance with the no-detectable- emission standards in 40 C.F.R. §§60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows:

(1) The requirements of paragraph (b) shall apply.

(2) Method 21 of appendix A-7 of this part shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

(1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference-see 40 C.F.R. §60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.

**SECTION D. Source Level Requirements**

(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.

(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d)(1) and (2) above shall be used to resolve the disagreement.

(e) The owner or operator shall demonstrate that a piece of equipment is in light liquid service by showing that all the following conditions apply:

(1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20°C (1.2 in. H₂O at 68°F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference-see 40 C.F.R. §60.17) shall be used to determine the vapor pressures.

(2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20°C (1.2 in. H₂O at 68 °F) is equal to or greater than 20 percent by weight.

(3) The fluid is a liquid at operating conditions.

(f) Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

(g) The owner or operator shall determine compliance with the standards of flares as follows:

(1) Method 22 of appendix A-7 of this part shall be used to determine visible emissions.

(2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.

(3) The maximum permitted velocity for air assisted flares shall be computed using the following equation:

(Formula omitted...refer to regulation for exact formula notation.)

$$V_{max} = K1 + K2 HT$$

Where:

V_{max} = Maximum permitted velocity, m/sec (ft/sec).

HT = Net heating value of the gas being combusted, MJ/scm (Btu/scf).

K1 = 8.706 m/sec (metric units) = 28.56 ft/sec (English units).

K2 = 0.7084 m/(MJ-sec) (metric units) = 0.087 ft/(Btu-sec) (English units).

(4) The net heating value (HT) of the gas being combusted in a flare shall be computed using the following equation:

(Formula omitted...refer to regulation for exact formula notation.)

"Equation"

Where:

K = Conversion constant, $1.740 \times 10 \text{ (g- mole)(MJ)/(ppm-scm-kcal)}$ (metric units) = $4.674 \times 10 \text{ [(g- mole)(Btu)/(ppm-scf-kcal)]}$ (English units).

C_i = Concentration of sample component "i," ppm

**SECTION D. Source Level Requirements**

H_i = net heat of combustion of sample component "i" at 25°C and 760 mm Hg (77°F and 14.7 psi), kcal/g-mole.

(5) Method 18 of appendix A-6 of this part or ASTM D6420-99 (2004) (where the target compound(s) are those listed in Section 1.1 of ASTM D6420-99, and the target concentration is between 150 parts per billion by volume and 100 ppmv) and ASTM D2504-67, 77, or 88 (Reapproved 1993) (incorporated by reference-see 40 C.F.R. §60.17) shall be used to determine the concentration of sample component "i."

(6) ASTM D2382-76 or 88 or D4809-95 (incorporated by reference-see 40 C.F.R. §60.17) shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.

(7) Method 2, 2A, 2C, or 2D of appendix A-7 of this part, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

(h) The owner or operator shall determine compliance with 40 C.F.R. §60.483-1a or 40 C.F.R. §60.483-2a as follows:

(1) The percent of valves leaking shall be determined using the following equation:

(Formula omitted...refer to regulation for exact formula notation.)

$$\%VL = (VL / VT) * 100$$

Where:

%VL = Percent leaking valves.

VL = Number of valves found leaking.

VT = The sum of the total number of valves monitored.

(2) The total number of valves monitored shall include difficult-to-monitor and unsafe-to-monitor valves only during the monitoring period in which those valves are monitored.

(3) The number of valves leaking shall include valves for which repair has been delayed.

(4) Any new valve that is not monitored within 30 days of being placed in service shall be included in the number of valves leaking and the total number of valves monitored for the monitoring period in which the valve is placed in service.

(5) If the process unit has been subdivided in accordance with 40 C.F.R. §60.482-7a(c)(1)(ii), the sum of valves found leaking during a monitoring period includes all subgroups.

(6) The total number of valves monitored does not include a valve monitored to verify repair.

III. MONITORING REQUIREMENTS.

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards.**

(a) (1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in §60.485a(b), except as provided in 40 C.F.R. §60.482-1a(c) and (f) and paragraphs (d), (e), and (f) below. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in 40 C.F.R. §60.482-1a(c) and paragraphs (d), (e), and (f) below.

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids

**SECTION D. Source Level Requirements**

dripping from the pump seal, except as provided in 40 C.F.R. §60.482-1a(f).

(b) (1) The instrument reading that defines a leak is specified in paragraphs (b)(1)(i) and (ii) below.

(i) 5,000 parts per million (ppm) or greater for pumps handling polymerizing monomers;

(ii) 2,000 ppm or greater for all other pumps.

(2) If there are indications of liquids dripping from the pump seal, the owner or operator shall follow the procedure specified in either paragraph (b)(2)(i) or (ii) below. This requirement does not apply to a pump that was monitored after a previous weekly inspection and the instrument reading was less than the concentration specified in paragraph (b)(1)(i) or (ii) above, whichever is applicable.

(i) Monitor the pump within 5 days as specified in §60.485a(b). A leak is detected if the instrument reading measured during monitoring indicates a leak as specified in paragraph (b)(1)(i) or (ii) above, whichever is applicable. The leak shall be repaired using the procedures in paragraph (c) below.

(ii) Designate the visual indications of liquids dripping as a leak, and repair the leak using either the procedures in paragraph (c) below or by eliminating the visual indications of liquids dripping.

(c) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 C.F.R. §60.482-9a.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in paragraphs (c)(2)(i) and (ii) of this section below where practicable.

(i) Tightening the packing gland nuts;

(ii) Ensuring that the seal flush is operating at design pressure and temperature.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a) of this section, provided the requirements specified in paragraphs (d)(1) through (6) below, are met.

(1) Each dual mechanical seal system is:

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 40 C.F.R. §60.482-10a; or

(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(2) The barrier fluid system is in heavy liquid service or is not in VOC service.

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) (i) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(ii) If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (A) or (B) below prior to the next required inspection.

(A) Monitor the pump within 5 days as specified in 40 C.F.R. §60.485a(b) to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected.

**SECTION D. Source Level Requirements**

(B) Designate the visual indications of liquids dripping as a leak.

(5) (i) Each sensor as described in paragraph (d)(3) is checked daily or is equipped with an audible alarm.

(ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(iii) If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established in paragraph (d)(5)(ii) above, a leak is detected.

(6) (i) When a leak is detected pursuant to paragraph (d)(4)(ii)(A) above, it shall be repaired as specified in paragraph (c) above.

(ii) A leak detected pursuant to paragraph (d)(5)(iii) above shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor.

(iii) A designated leak pursuant to paragraph (d)(4)(ii)(B) above shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping.

(e) Any pump that is designated, as described in 40 C.F.R. §60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of above if the pump:

(1) Has no externally actuated shaft penetrating the pump housing;

(2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in 40 C.F.R. §60.485a(c); and

(3) Is tested for compliance with paragraph (e)(2) above initially upon designation, annually, and at other times requested by the Administrator.

(f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of 40 C.F.R. §60.482-10a, it is exempt from paragraphs (a) through (e) above.

(g) Any pump that is designated, as described in 40 C.F.R. §60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) above if:

(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) above; and

(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) above if a leak is detected.

(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) above, and the daily requirements of paragraph (d)(5) above, provided that each pump is visually inspected as often as practicable and at least monthly.

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards.**

(a) (1) Each valve shall be monitored monthly to detect leaks by the methods specified in 40 C.F.R. §60.485a(b) and shall comply with paragraphs (b) through (e) below, except as provided in paragraphs (f), (g), and (h) below, 40 C.F.R. §60.482-1a(c) and (f), and 40 C.F.R. §§60.483-1a and 60.483-2a.

**SECTION D. Source Level Requirements**

(2) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to paragraphs (a)(2)(i) or (ii), except for a valve that replaces a leaking valve and except as provided in paragraphs (f), (g), and (h) below, 40 C.F.R. §60.482-1a(c), and §§60.483-1a and 60.483-2a.

(i) Monitor the valve as in paragraph (a)(1) above. The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation.

(ii) If the existing valves in the process unit are monitored in accordance with 40 C.F.R. §60.483-1a or §60.483-2a, count the new valve as leaking when calculating the percentage of valves leaking as described in 40 C.F.R. §60.483-2a(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first.

(b) If an instrument reading of 500 ppm or greater is measured, a leak is detected.

(c) (1) (i) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

(ii) As an alternative to monitoring all of the valves in the first month of a quarter, an owner or operator may elect to subdivide the process unit into two or three subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The owner or operator must keep records of the valves assigned to each subgroup.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

(d) (1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 C.F.R. §60.482-9a.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) First attempts at repair include, but are not limited to, the following best practices where practicable:

(1) Tightening of bonnet bolts;

(2) Replacement of bonnet bolts;

(3) Tightening of packing gland nuts;

(4) Injection of lubricant into lubricated packing.

(f) Any valve that is designated, as described in 40 C.F.R. §60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) above if the valve:

(1) Has no external actuating mechanism in contact with the process fluid,

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in 40 C.F.R. §60.485a(c), and

(3) Is tested for compliance with paragraph (f)(2) above initially upon designation, annually, and at other times requested by the Administrator.

(g) Any valve that is designated, as described in 40 C.F.R. §60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) above if:

(1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel

**SECTION D. Source Level Requirements**

would be exposed to an immediate danger as a consequence of complying with paragraph (a) above, and

(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(h) Any valve that is designated, as described in 40 C.F.R. §60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) above if:

(1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(2) The process unit within which the valve is located either:

(i) Becomes an affected facility through 40 C.F.R. §60.14 or §60.15 and was constructed on or before January 5, 1981; or

(ii) Has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator.

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

IV. RECORDKEEPING REQUIREMENTS.

**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which
Construction, Reconstruction, or Modification Commenced After November 7, 2006
Standards.**

(a) (1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.

(2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility.

(3) The owner or operator shall record the information specified in paragraphs (a)(3)(i) through (v) below for each monitoring event required by 40 C.F.R. §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a.

(i) Monitoring instrument identification.

(ii) Operator identification.

(iii) Equipment identification.

(iv) Date of monitoring.

(v) Instrument reading.

(b) When each leak is detected as specified in 40 C.F.R. §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 C.F.R. §60.482-7a(c) and no leak has been detected during those 2 months.

(3) The identification on a connector may be removed after it has been monitored as specified in 40 C.F.R. §60.482-

**SECTION D. Source Level Requirements**

11a(b)(3)(iv) and no leak has been detected during that monitoring.

(4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired.

(c) When each leak is detected as specified in 40 C.F.R. §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

(1) The instrument and operator identification numbers and the equipment identification number, except when indications of liquids dripping from a pump are designated as a leak.

(2) The date the leak was detected and the dates of each attempt to repair the leak.

(3) Repair methods applied in each attempt to repair the leak.

(4) Maximum instrument reading measured by Method 21 of appendix A-7 of this part at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping.

(5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days.

(8) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(9) The date of successful repair of the leak.

(d) The following information pertaining to the design requirements for closed vent systems and control devices described in 40 C.F.R. §60.482-10a shall be recorded and kept in a readily accessible location:

(1) Detailed schematics, design specifications, and piping and instrumentation diagrams.

(2) The dates and descriptions of any changes in the design specifications.

(3) A description of the parameter or parameters monitored, as required in 40 C.F.R. §60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(4) Periods when the closed vent systems and control devices required in 40 C.F.R. §§60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame.

(5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 C.F.R. §§60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a.

(e) The following information pertaining to all equipment subject to the requirements in 40 C.F.R. §§60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for equipment subject to the requirements of this subpart.

(2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 C.F.R. §§60.482-2a(e), 60.482-3a(i), and 60.482-7a(f).

(ii) The designation of equipment as subject to the requirements of 40 C.F.R. §60.482-2a(e), §60.482-3a(i), or §60.482-

**SECTION D. Source Level Requirements**

7a(f) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with their permitting authority that satisfies this requirement.

(3) A list of equipment identification numbers for pressure relief devices required to comply with 40 C.F.R. §60.482-4a.

(4) (i) The dates of each compliance test as required in 40 C.F.R. §§60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with 40 C.F.R. §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.

(7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service.

(8) Records of the information specified in paragraphs (e)(8)(i) through (vi) below for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of this part and 40 C.F.R. §60.485a(b).

(i) Date of calibration and initials of operator performing the calibration.

(ii) Calibration gas cylinder identification, certification date, and certified concentration.

(iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of this part.

(v) Results of each calibration drift assessment required by 40 C.F.R. §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value).

(vi) If an owner or operator makes their own calibration gas, a description of the procedure used.

(9) The connector monitoring schedule for each process unit as specified in 40 C.F.R. §60.482-11a(b)(3)(v).

(10) Records of each release from a pressure relief device subject to 40 C.F.R. §60.482-4a.

(f) The following information pertaining to all valves subject to the requirements of 40 C.F.R. §60.482-7a(g) and (h), all pumps subject to the requirements of 40 C.F.R. §60.482-2a(g), and all connectors subject to the requirements of 40 C.F.R. §60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector.

(2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

(g) The following information shall be recorded for valves complying with 40 C.F.R. §60.483-2a:

(1) A schedule of monitoring.

**SECTION D. Source Level Requirements**

- (2) The percent of valves found leaking during each monitoring period.
- (h) The following information shall be recorded in a log that is kept in a readily accessible location:
- (1) Design criterion required in 40 C.F.R. §§60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and
- (2) Any changes to this criterion and the reasons for the changes.
- (i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 C.F.R. §60.480a(d):
- (1) An analysis demonstrating the design capacity of the affected facility,
- (2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and
- (3) An analysis demonstrating that equipment is not in VOC service.
- (j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.
- (k) The provisions of 40 C.F.R. §60.7(b) and (d) do not apply to affected facilities subject to this subpart.

V. REPORTING REQUIREMENTS.

**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards.**

- (a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date.
- (b) The initial semiannual report to the Administrator shall include the following information:
- (1) Process unit identification.
- (2) Number of valves subject to the requirements of 40 C.F.R. §60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 C.F.R. §60.482-7a(f).
- (3) Number of pumps subject to the requirements of 40 C.F.R. §60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 C.F.R. §60.482-2a(e) and those pumps complying with 40 C.F.R. §60.482-2a(f).
- (4) Number of compressors subject to the requirements of 40 C.F.R. §60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 C.F.R. §60.482-3a(i) and those compressors complying with 40 C.F.R. §60.482-3a(h).
- (5) Number of connectors subject to the requirements of 40 C.F.R. §60.482-11a.
- (c) All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 C.F.R. §60.486a:
- (1) Process unit identification.

**SECTION D. Source Level Requirements**

- (2) For each month during the semiannual reporting period,
- (i) Number of valves for which leaks were detected as described in 40 C.F.R. §60.482-7a(b) or 40 C.F.R. §60.483-2a,
 - (ii) Number of valves for which leaks were not repaired as required in 40 C.F.R. §60.482-7a(d)(1),
 - (iii) Number of pumps for which leaks were detected as described in 40 C.F.R. §60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii),
 - (iv) Number of pumps for which leaks were not repaired as required in 40 C.F.R. §60.482-2a(c)(1) and (d)(6),
 - (v) Number of compressors for which leaks were detected as described in 40 C.F.R. §60.482-3a(f),
 - (vi) Number of compressors for which leaks were not repaired as required in 40 C.F.R. §60.482-3a(g)(1),
 - (vii) Number of connectors for which leaks were detected as described in 40 C.F.R. §60.482-11a(b)
 - (viii) Number of connectors for which leaks were not repaired as required in 40 C.F.R. §60.482-11a(d), and
 - (xi) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.
- (3) Dates of process unit shutdowns which occurred within the semiannual reporting period.
- (4) Revisions to items reported according to paragraph (b) of this section if changes have occurred since the initial report or subsequent revisions to the initial report.
- (d) An owner or operator electing to comply with the provisions of 40 C.F.R. §§60.483-1a or 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.
- (e) An owner or operator shall report the results of all performance tests in accordance with 40 C.F.R. §60.8 of the General Provisions. The provisions of 40 C.F.R. §60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.
- (f) The requirements of paragraphs (a) through (c) above remain in force until and unless EPA, in delegating enforcement authority to a state under section 111(c) of the CAA, approves reporting requirements or an alternative means of compliance surveillance adopted by such state. In that event, affected sources within the state will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) above, provided that they comply with the requirements established by the state.

VI. WORK PRACTICE REQUIREMENTS.

**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards.**

- (a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 40 C.F.R. §60.482-1a(c) and paragraphs (h), (i), and (j) below.
- (b) Each compressor seal system as required in paragraph (a) above shall be:
 - (1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or
 - (2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 40 C.F.R. §60.482-10a; or

**SECTION D. Source Level Requirements**

- (3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.
- (c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.
- (d) Each barrier fluid system as described in paragraph (a) above shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.
- (e) (1) Each sensor as required in paragraph (d) above shall be checked daily or shall be equipped with an audible alarm.
- (2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
- (f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2) above, a leak is detected.
- (g) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 C.F.R. §60.482-9a.
- (2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
- (h) A compressor is exempt from the requirements of paragraphs (a) and (b) of this section, if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of 40 C.F.R. §60.482-10a, except as provided in paragraph (i) below.
- (i) Any compressor that is designated, as described in 40 C.F.R. §60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a) through (h) above if the compressor:
- (1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in 40 C.F.R. §60.485a(c); and
- (2) Is tested for compliance with paragraph (i)(1) above initially upon designation, annually, and at other times requested by the Administrator.
- (j) Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of 40 C.F.R. §60.14 or 40 C.F.R. §60.15 is exempt from paragraphs (a) through (e) and (h) above, provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of paragraphs (a) through (e) and (h) above.

**# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
 Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which
 Construction, Reconstruction, or Modification Commenced After November 7, 2006
 Standards.**

- (a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 C.F.R. §60.482-1a(c) and paragraph (c) below.
- (b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) above shall comply with the requirements specified in paragraphs (b)(1) through (4) below.
- (1) Gases displaced during filling of the sample container are not required to be collected or captured.
- (2) Containers that are part of a closed- purge system must be covered or closed when not being filled or emptied.
- (3) Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after

**SECTION D. Source Level Requirements**

the valves are closed and the sample container is disconnected are not required to be collected or captured.

(4) Each closed-purge, closed-loop, or closed-vent system shall be designed and operated to meet requirements in either paragraph (i), (ii), (iii), or (iv) below.

(i) Return the purged process fluid directly to the process line.

(ii) Collect and recycle the purged process fluid to a process.

(iii) Capture and transport all the purged process fluid to a control device that complies with the requirements of 40 C.F.R. §60.482-10a.

(iv) Collect, store, and transport the purged process fluid to any of the following systems or facilities:

(A) A waste management unit as defined in 40 C.F.R. §63.111, if the waste management unit is subject to and operated in compliance with the provisions of 40 C.F.R. part 63, subpart G, applicable to Group 1 wastewater streams;

(B) A treatment, storage, or disposal facility subject to regulation under 40 C.F.R. part 262, 264, 265, or 266;

(C) A facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 C.F.R. part 261;

(D) A waste management unit subject to and operated in compliance with the treatment requirements of 40 C.F.R. §61.348(a), provided all waste management units that collect, store, or transport the purged process fluid to the treatment unit are subject to and operated in compliance with the management requirements of 40 C.F.R. §61.343 through 40 C.F.R. §61.347; or

(E) A device used to burn off-specification used oil for energy recovery in accordance with 40 C.F.R. part 279, subpart G, provided the purged process fluid is not hazardous waste as defined in 40 C.F.R. part 261.

(c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) above.

**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which
Construction, Reconstruction, or Modification Commenced After November 7, 2006
Standards.**

(a) (1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 C.F.R. §60.482-1a(c) and paragraphs (d) and (e) below.

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) above at all other times.

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b), and (c) above.

(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) above are exempt from the requirements of paragraphs (a) through (c) above.

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**# 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards.**

- (a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 C.F.R. §60.485a(c).
- (b) (1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 C.F.R. §60.482-9a.
- (2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 C.F.R. §60.485a(c).
- (c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in §60.482-10a is exempted from the requirements of paragraphs (a) and (b) above.
- (d) (1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) above, provided the owner or operator complies with the requirements in paragraph (d)(2) below.
- (2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 C.F.R. §60.482-9a.

**# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards.**

- (a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, the owner or operator shall follow either one of the following procedures:
- (1) The owner or operator shall monitor the equipment within 5 days by the method specified in §60.485a(b) and shall comply with the requirements of paragraphs (b) through (d) below.
- (2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection.
- (b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
- (c) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 C.F.R. §60.482-9a.
- (2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
- (d) First attempts at repair include, but are not limited to, the best practices described under 40 C.F.R. §§60.482-2a(c)(2) and 60.482-7a(e).

**# 014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards.**

**SECTION D. Source Level Requirements**

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.

(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

(c) Delay of repair for valves and connectors will be allowed if:

(1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 C.F.R. §60.482-10a.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

(f) When delay of repair is allowed for a leaking pump, valve, or connector that remains in service, the pump, valve, or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

**# 015 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGCa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards.**

(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume (ppmv), whichever is less stringent.

(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 ppmv, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816°C.

(d) Flares used to comply with this subpart shall comply with the requirements of 40 C.F.R. §60.18.

(e) Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

(f) Except as provided in paragraphs (i) through (k) below, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (2) below.

(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (f)(1)(i) and (ii) below:

**SECTION D. Source Level Requirements**

- (i) Conduct an initial inspection according to the procedures in 40 C.F.R. §60.485a(b); and
 - (ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.
- (2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:
- (i) Conduct an initial inspection according to the procedures in 40 C.F.R. §60.485a(b); and
 - (ii) Conduct annual inspections according to the procedures in 40 C.F.R. §60.485a(b).
- (g) Leaks, as indicated by an instrument reading greater than 500 ppmv above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) below.
- (1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
 - (2) Repair shall be completed no later than 15 calendar days after the leak is detected.
- (h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.
- (i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) above.
- (j) Any parts of the closed vent system that are designated, as described in paragraph (l)(1) below, as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) above if they comply with the requirements specified in paragraphs (j)(1) and (2) below:
- (1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (f)(1)(i) or (f)(2) above; and
 - (2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.
- (k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) below, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) above if they comply with the requirements specified in paragraphs (k)(1) through (3) below:
- (1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and
 - (2) The process unit within which the closed vent system is located becomes an affected facility through 40 C.F.R. §§60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and
 - (3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.
- (l) The owner or operator shall record the information specified in paragraphs (l)(1) through (5) below.
- (1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.
 - (2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

**SECTION D. Source Level Requirements**

- (3) For each inspection during which a leak is detected, a record of the information specified in 40 C.F.R. §60.486a(c).
- (4) For each inspection conducted in accordance with 40 C.F.R. §60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
- (5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) above during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
- (m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

VII. ADDITIONAL REQUIREMENTS.

**# 016 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards.**

- (a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of 40 C.F.R. §§60.482-1a through 60.482-10a or §60.480a(e) for all equipment within 180 days of initial startup.
- (b) Compliance with 40 C.F.R. §§60.482-1a to 60.482-10a will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 C.F.R. §60.485a.
- (c) (1) An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 C.F.R. §§60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 C.F.R. §60.484a.
- (2) If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 C.F.R. §§60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination.
- (d) Equipment that is in vacuum service is excluded from the requirements of 40 C.F.R. §§60.482-2a through 60.482-10a if it is identified as required in 40 C.F.R. §60.486a(e)(5).
- (e) Equipment that an owner or operator designates as being in VOC service less than 300 hr/yr is excluded from the requirements of 40 C.F.R. §§60.482-2a through 60.482-11a if it is identified as required in 40 C.F.R. §60.486a(e)(6) and it meets any of the conditions specified in paragraphs (1) through (3) below.
- (1) The equipment is in VOC service only during startup and shutdown, excluding startup and shutdown between batches of the same campaign for a batch process.
- (2) The equipment is in VOC service only during process malfunctions or other emergencies.
- (3) The equipment is backup equipment that is in VOC service only when the primary equipment is out of service.
- (f) (1) If a dedicated batch process unit operates less than 365 days during a year, an owner or operator may monitor to detect leaks from pumps, valves, and open-ended valves or lines at the frequency specified in the following table instead of monitoring as specified in 40 C.F.R. §§60.482-2a, 60.482-7a, and 60.483.2a:

Operating time (percent of hours during year)	Equivalent monitoring frequency time		
	Monthly	Quarterly	Semiannually
0 to < 25	Quarterly	Annually	Annually
25 to < 50	Quarterly	Semiannually	Annually
50 to < 75	Bimonthly	Three quarters	Semiannually

**SECTION D. Source Level Requirements**

75 to 100

Monthly

Quarterly

Semiannually

(2) Pumps and valves that are shared among two or more batch process units that are subject to this subpart may be monitored at the frequencies specified in paragraph (f)(1) above, provided the operating time of all such process units is considered.

(3) The monitoring frequencies specified in paragraph (f)(1) of this section are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor at any time during the specified monitoring period (e.g., month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. Reasonable intervals are defined in paragraphs (f)(3)(i) through (iv) below.

(i) When monitoring is conducted quarterly, monitoring events must be separated by at least 30 calendar days.

(ii) When monitoring is conducted semiannually (i.e., once every 2 quarters), monitoring events must be separated by at least 60 calendar days.

(iii) When monitoring is conducted in 3 quarters per year, monitoring events must be separated by at least 90 calendar days.

(iv) When monitoring is conducted annually, monitoring events must be separated by at least 120 calendar days.

(g) If the storage vessel is shared with multiple process units, the process unit with the greatest annual amount of stored materials (predominant use) is the process unit the storage vessel is assigned to. If the storage vessel is shared equally among process units, and one of the process units has equipment subject to this subpart, the storage vessel is assigned to that process unit. If the storage vessel is shared equally among process units, none of which have equipment subject to this subpart of this part, the storage vessel is assigned to any process unit subject to subpart VV of this part. If the predominant use of the storage vessel varies from year to year, then the owner or operator must estimate the predominant use initially and reassess every 3 years. The owner or operator must keep records of the information and supporting calculations that show how predominant use is determined. All equipment on the storage vessel must be monitored when in VOC service.

**# 017 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592a]
Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards.**

(a) Each owner or operator subject to the provisions of this subpart shall comply with the requirements of 40 C.F.R. §§60.482-1a to 60.482-10a as soon as practicable, but no later than 180 days after initial startup.

(b) Each owner or operator subject to the provisions of this subpart shall comply with the provisions of 40 C.F.R. §60.485a except as provided in 40 C.F.R. §60.593a.

(c) Each owner or operator subject to the provisions of this subpart shall comply with the provisions of 40 C.F.R. §§60.486a and 60.487a.

*** **Permit Shield in Effect.** ***

**SECTION D. Source Level Requirements**

Source ID: 300

Source Name: MISCELLANEOUS MACT GROUP 2 TANKS

Source Capacity/Throughput:

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.**# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The applicable requirements for this source can be found in Source T003 (MACT Group 2 Tanks).

002 [25 Pa. Code §127.503]**Application information.**

As of the issuance date of this permit, this source consists of the following individual fixed roof storage tanks that are subject to MACT group 2 fixed roof tanks requirements:

- DEP Source number 180, capacity - 54 M barrels
- DEP Source number 181, capacity - 54 M barrels
- DEP Source number 182, capacity - 54 M barrels
- DEP Source number 195, capacity - 93 M barrels
- DEP Source number 376A, capacity - 140 M barrels
- DEP Source number T62, capacity - 10 M barrels
- DEP Source number 184, capacity - 8 M barrels
- DEP Source number T83, capacity - 500 barrels
- DEP Source number T84, capacity - 1 M barrels
- DEP Source number T143, capacity - 9 M barrels
- DEP Source number T144, capacity - 9 M barrels
- DEP Source number T145, capacity - 10 M barrels
- DEP Source number T146, capacity - 10 M barrels
- DEP Source number T147, capacity - 10 M barrels

**SECTION D. Source Level Requirements**

- DEP Source number T148, capacity - 10 Mbarrels
- DEP Source number 193, capacity - 56 Mbarrels
- DEP Source number T33T1, capacity - 500 barrels
- DEP Source number T81, capacity - 300 barrels
- DEP Source number T82, capacity - 516 barrels
- DEP Source number TMET1, capacity - 150 barrels
- Tank number 82TK2
- Tank number 312
- Tank number 313

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

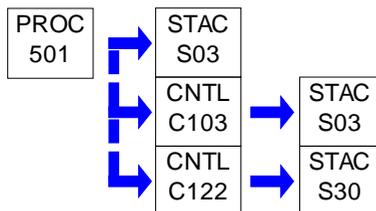
Source ID: 501

Source Name: SPHEROID 501 (1.26 MM GAL)

Source Capacity/Throughput:

N/A

LIGHT ISOCRACATE

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T006.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

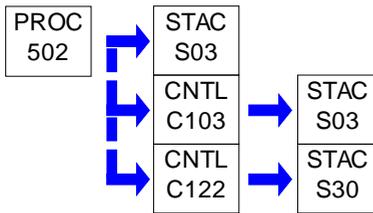
Source ID: 502

Source Name: SPHEROID 502 (1.26 MM GAL)

Source Capacity/Throughput:

N/A

LIGHT ISOCRACATE

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T006.

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

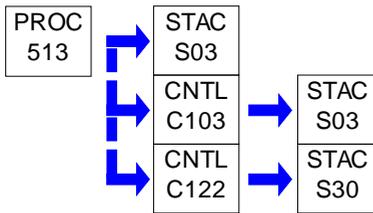
Source ID: 513

Source Name: SPHEROID 513 (1.26 MM GAL)

Source Capacity/Throughput:

N/A

LIGHT ISOCRACATE

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.

The applicable requirements for this source can be found in Source T006.

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 700

Source Name: HEAT EXCHANGE SYSTEMS

Source Capacity/Throughput:

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.654]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Heat exchange systems.**

The permittee must perform monitoring to identify leaks of total strippable volatile organic compounds (VOC) from each heat exchange system according to the procedures in paragraphs (1) through (6) below.

(1) For each closed loop recirculating heat exchange system, collect and analyze a sample from either of the location(s):

(i) Each cooling tower return line or any representative riser within the cooling tower prior to exposure to air for each heat exchange system; or

(ii) Selected heat exchanger exit line(s) so that each heat exchanger or group of heat exchangers within a heat exchange system is covered by the selected monitoring location(s).

(2) For each once-through heat exchange system, collect and analyze a sample from the location(s) described in paragraph (2)(i) below. The permittee may also elect to collect and analyze an additional sample from the location(s) described in paragraph (2)(ii) below.

(i) Selected heat exchanger exit line(s) so that each heat exchanger or group of heat exchangers within a heat exchange system is covered by the selected monitoring location(s). The selected monitoring location may be at a point where discharges from multiple heat exchange systems are combined provided that the combined cooling water flow rate at the monitoring location does not exceed 40,000 gallons per minute.

(ii) The inlet water feed line for a once-through heat exchange system prior to any heat exchanger. If multiple heat exchange systems use the same water feed (i.e., inlet water from the same primary water source), the permittee may monitor at one representative location and use the monitoring results for that sampling location for all heat exchange systems that use that same water feed.

(3) Monitoring method. Determine the total strippable hydrocarbon concentration (in parts per million by volume (ppmv) as methane) at each monitoring location using the "Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources" Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, prepared by Texas Commission on Environmental Quality, January 31, 2003 (incorporated by reference—see § 63.14) using a flame ionization detector (FID) analyzer for on-site determination as described in Section 6.1 of the Modified El Paso Method.

(4) Monitoring frequency and leak action level for existing sources. For a heat exchange system at an existing source, the permittee must comply with the monitoring frequency and leak action level as defined in paragraph (4)(i) below or comply with the monitoring frequency and leak action level as defined in paragraph (4)(ii) below . The permittee may choose to comply with paragraph (4)(i) below for some heat exchange systems and comply with paragraph (4)(ii) below for other heat exchange systems. However, for each affected heat exchange system, the permittee must elect one monitoring alternative that will apply at all times. If the permittee intends to change the monitoring alternative that applies to a heat exchange system, the permittee must notify DEP 30 days in advance of such a change. All "leaks" identified prior to changing monitoring alternatives must be repaired. The monitoring frequencies specified in paragraphs (4)(i) and (ii) below also apply to the inlet water feed line for a once-through heat exchange system, if monitoring of the inlet water feed is elected as

**SECTION D. Source Level Requirements**

provided in paragraph (2)(ii) below.

(i) Monitor monthly using a leak action level defined as a total strippable hydrocarbon concentration (as methane) in the stripping gas of 6.2 ppmv.

(ii) Monitor quarterly using a leak action level defined as a total strippable hydrocarbon concentration (as methane) in the stripping gas of 3.1 ppmv unless repair is delayed as provided in 40 C.F.R. §63.654(f). If a repair is delayed, monitor monthly.

IV. RECORDKEEPING REQUIREMENTS.

**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.654]
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Heat exchange systems.**

To delay a repair, the permittee must record the following information.

(1) The reason(s) for delaying repair.

(2) A schedule for completing the repair as soon as practical.

(3) The date and concentration of the leak as first identified and the results of all subsequent monthly monitoring events during the delay of repair.

(4) An estimate of the potential strippable hydrocarbon emissions from the leaking heat exchange system or heat exchanger for each required delay of repair monitoring interval following the procedures in paragraphs (4)(i) through (iv) below.

(i) Determine the leak concentration as specified in 40 C.F.R. §63.654(c) and convert the stripping gas leak concentration (in ppmv as methane) to an equivalent liquid concentration, in parts per million by weight (ppmw), using equation 7-1 from "Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources" Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, prepared by Texas Commission on Environmental Quality, January 31, 2003 (incorporated by reference—see 40 C.F.R. §63.14) and the molecular weight of 16 grams per mole (g/mol) for methane.

(ii) Determine the mass flow rate of the cooling water at the monitoring location where the leak was detected. If the monitoring location is an individual cooling tower riser, determine the total cooling water mass flow rate to the cooling tower. Cooling water mass flow rates may be determined using direct measurement, pump curves, heat balance calculations, or other engineering methods. Volumetric flow measurements may be used and converted to mass flow rates using the density of water at the specific monitoring location temperature or using the default density of water at 25 degrees Celsius, which is 997 kilograms per cubic meter or 8.32 pounds per gallon.

(iii) For delay of repair monitoring intervals prior to repair of the leak, calculate the potential strippable hydrocarbon emissions for the leaking heat exchange system or heat exchanger for the monitoring interval by multiplying the leak concentration in the cooling water, ppmw, determined in (4)(i) above, by the mass flow rate of the cooling water determined in (4)(ii) above and by the duration of the delay of repair monitoring interval. The duration of the delay of repair monitoring interval is the time period starting at midnight on the day of the previous monitoring event or at midnight on the day the repair would have had to be completed if the repair had not been delayed, whichever is later, and ending at midnight of the day the of the current monitoring event.

(iv) For delay of repair monitoring intervals ending with a repaired leak, calculate the potential strippable hydrocarbon emissions for the leaking heat exchange system or heat exchanger for the final delay of repair monitoring interval by multiplying the duration of the final delay of repair monitoring interval by the leak concentration and cooling water flow rates determined for the last monitoring event prior to the re-monitoring event used to verify the leak was repaired. The duration of the final delay of repair monitoring interval is the time period starting at midnight of the day of the last monitoring event prior to re-monitoring to verify the leak was repaired and ending at the time of the re-monitoring event that verified that the leak was repaired.

**SECTION D. Source Level Requirements****# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Reporting and recordkeeping requirements.**

The permittee shall comply with the recordkeeping requirements of this section and retain these records for 5 years.

- (i) Identification of all petroleum refinery process unit heat exchangers at the facility and the average annual HAP concentration of process fluid or intervening cooling fluid estimated when developing the Notification of Compliance Status report.
- (ii) Identification of all heat exchange systems subject to the monitoring requirements in 40 C.F.R. §63.654 and identification of all heat exchange systems that are exempt from the monitoring requirements according to the provisions in 40 C.F.R. §63.654(b). For each heat exchange system that is subject to the monitoring requirements in 40 C.F.R. §63.654, this must include identification of all heat exchangers within each heat exchange system, and, for closed-loop recirculation systems, the cooling tower included in each heat exchange system.
- (iii) Results of the following monitoring data for each required monitoring event:
 - (A) Date/time of event.
 - (B) Barometric pressure.
 - (C) El Paso air stripping apparatus water flow milliliter/minute (ml/min) and air flow, ml/min, and air temperature, °Celsius.
 - (D) FID reading (ppmv).
 - (E) Length of sampling period.
 - (F) Sample volume.
 - (G) Calibration information identified in Section 5.4.2 of the "Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources" Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, prepared by Texas Commission on Environmental Quality, January 31, 2003 (incorporated by reference—see 40 C.F.R. §63.14).

V. REPORTING REQUIREMENTS.**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Reporting and recordkeeping requirements.**

- (a) The permittee shall submit Periodic Reports no later than 60 days after the end of each 6-month period when any of the compliance exceptions specified for any heat exchange system occur. The first 6-month period shall begin on the date the Notification of Compliance Status report is required to be submitted. A Periodic Report is not required if none of the compliance exceptions for the heat exchange system occurred during the 6-month period. The permittee may submit reports required by other regulations in place of or as part of the Periodic Report required by this paragraph if the reports contain the information required by 40 C.F.R. §63.655(g)(9).
- (b) For heat exchange systems, Periodic Reports must include the following information:
 - (i) The number of heat exchange systems at the plant site subject to the monitoring requirements in 40 C.F.R. §63.654.
 - (ii) The number of heat exchange systems at the plant site found to be leaking.
 - (iii) For each monitoring location where the total strippable hydrocarbon concentration was determined to be equal to or greater than the applicable leak definitions specified in 40 C.F.R. §63.654(c)(6), identification of the monitoring location (e.g., unique monitoring location or heat exchange system ID number), the measured total strippable hydrocarbon concentration, the date the leak was first identified, and, if applicable, the date the source of the leak was identified;
 - (iv) For leaks that were repaired during the reporting period (including delayed repairs), identification of the monitoring location associated with the repaired leak, the total strippable hydrocarbon concentration measured during re-monitoring to verify repair, and the re-monitoring date (i.e., the effective date of repair); and

**SECTION D. Source Level Requirements**

(v) For each delayed repair, identification of the monitoring location associated with the leak for which repair is delayed, the date when the delay of repair began, the date the repair is expected to be completed (if the leak is not repaired during the reporting period), the total strippable hydrocarbon concentration and date of each monitoring event conducted on the delayed repair during the reporting period, and an estimate of the potential strippable hydrocarbon emissions over the reporting period associated with the delayed repair.

(c) Other reports shall be submitted as specified in 40 C.F.R. 63 Subpart A and as follows:

(1) Reports of startup, shutdown, and malfunction required by 40 C.F.R. §63.10(d)(5). Records and reports of startup, shutdown, and malfunction are not required if they pertain solely to Group 2 emission points, as defined in 40 C.F.R. §63.641, that are not included in an emissions average. For purposes of this paragraph, startup and shutdown shall have the meaning defined in 40 C.F.R. §63.641, and malfunction shall have the meaning defined in 40 C.F.R. §63.2; and

(2) The permittee must notify DEP at least 30 calendar days prior to changing from one of the monitoring options specified in 40 C.F.R. §63.654(c)(4) to the other.

VI. WORK PRACTICE REQUIREMENTS.**# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.654]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Heat exchange systems.**

(a) When a leak is detected, the permittee must repair the leak to reduce the measured concentration to below the applicable action level as soon as practicable, but no later than 45 days after identifying the leak, except as specified in 40 C.F.R. §63.654(e) and (f). Repair includes re-monitoring at the monitoring location where the leak was identified according to the method specified in 40 C.F.R. §63.654(c)(3) to verify that the measured concentration is below the applicable action level. Actions that can be taken to achieve repair include but are not limited to:

- (1) Physical modifications to the leaking heat exchanger, such as welding the leak or replacing a tube;
- (2) Blocking the leaking tube within the heat exchanger;
- (3) Changing the pressure so that water flows into the process fluid;
- (4) Replacing the heat exchanger or heat exchanger bundle; or
- (5) Isolating, bypassing, or otherwise removing the leaking heat exchanger from service until it is otherwise repaired.

(b) When a leak is detected at a cooling tower return line, the permittee may conduct additional monitoring of each heat exchanger or group of heat exchangers associated with the heat exchange system for which the leak was detected as provided under 40 C.F.R. §63.654(c)(1)(ii). If no leaks are detected when monitoring according to the requirements of 40 C.F.R. §63.654(c)(1)(ii), the heat exchange system is considered to meet the repair requirements through re-monitoring of the heat exchange system.

(c) The permittee may delay the repair of a leaking heat exchanger when one of the conditions in paragraph (c)(1) or (c)(2) below is met and the leak is less than the delay of repair action level specified in paragraph (c)(3) below. The permittee must determine if a delay of repair is necessary as soon as practicable, but no later than 45 days after first identifying the leak.

(1) If the repair is technically infeasible without a shutdown and the total strippable hydrocarbon concentration is initially and remains less than the delay of repair action level for all monthly monitoring periods during the delay of repair, the permittee may delay repair until the next scheduled shutdown of the heat exchange system. If, during subsequent monthly monitoring, the delay of repair action level is exceeded, the permittee must repair the leak within 30 days of the monitoring event in which the leak was equal to or exceeded the delay of repair action level.

(2) If the necessary equipment, parts, or personnel are not available and the total strippable hydrocarbon concentration is initially and remains less than the delay of repair action level for all monthly monitoring periods during the delay of repair,

**SECTION D. Source Level Requirements**

the permittee may delay the repair for a maximum of 120 calendar days. The permittee must demonstrate that the necessary equipment, parts, or personnel were not available. If, during subsequent monthly monitoring, the delay of repair action level is exceeded, the permittee must repair the leak within 30 days of the monitoring event in which the leak was equal to or exceeded the delay of repair action level.

(3) The delay of repair action level is a total strippable hydrocarbon concentration (as methane) in the stripping gas of 62 ppmv. The delay of repair action level is assessed as described in paragraph (c)(3)(i) or (c)(3)(ii) below, as applicable.

(i) For once-through heat exchange systems for which the inlet water feed is monitored as described in 40 C.F.R. §63.654(c)(2)(ii), the delay of repair action level is exceeded if the difference in the measurement value of the sample taken from a location specified in 40 C.F.R. §63.654(c)(2)(i) and the measurement value of the corresponding sample taken from the location specified in 40 C.F.R. §63.654(c)(2)(ii) equals or exceeds the delay of repair action level.

(ii) For all other heat exchange systems, the delay of repair action level is exceeded if a measurement value of the sample taken from a location specified in either 40 C.F.R. §63.654(c)(1)(i), (c)(1)(ii), or (c)(2)(i) equals or exceeds the delay of repair action level.

VII. ADDITIONAL REQUIREMENTS.**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.640]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Applicability and designation of affected source.**

(a) As per 40 C.F.R. §63.640(h)(6), heat exchange systems shall be in compliance with the existing source standards in 40 C.F.R. §63.654 no later than October 29, 2012.

(b) The heat exchange systems subject to 40 C.F.R. 63 Subpart CC at the Trainer Refinery (Facility ID 293037) are:

Marcus Hook Guard Basin
Stony Creek Guard Basin
Alky Unit Cooling Tower
Benzene Unit Cooling Tower
South Side Cooling Tower

007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.654]**Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Heat exchange systems.**

Leak definition.

A leak is defined as described in paragraph (i) or (ii) below, as applicable.

(i) For once-through heat exchange systems for which the inlet water feed is monitored as described in 40 C.F.R. §63.654(c)(2)(ii), a leak is detected if the difference in the measurement value of the sample taken from a location specified in 40 C.F.R. §63.654(c)(2)(i) and the measurement value of the corresponding sample taken from the location specified in 40 C.F.R. §63.654(c)(2)(ii) equals or exceeds the leak action level.

(ii) For all other heat exchange systems, a leak is detected if a measurement value of the sample taken from a location specified in either 40 C.F.R. §63.654(c)(1)(i), (c)(1)(ii), or (c)(2)(i) equals or exceeds the leak action level.

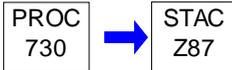
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 730

Source Name: REFORMER UNIT FUGITIVES

Source Capacity/Throughput: 250.000 Tons/HR REFORMATE

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall not exceed the following Volatile Organic Compound (VOC) emission rate from this process' valves, flanges, pumps, and other process equipment associated with the Reformate Splitter and depentanizer column, calculated from methods approved by the Department:

Volatile Organic Compounds (VOCs), 0.4002 lbs/hr = 1.75 ton/yr.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall monitor VOC emissions from this source according to the applicable LDAR schedule, as indicated in Source #'s 114 and 128.

IV. RECORDKEEPING REQUIREMENTS.**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall record the monitored VOC emissions from this source according to the applicable LDAR schedule, as indicated in Source #'s 114 and 128.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Only centrifugal pumps with double mechanical seals incorporating a barrier fluid or seal-less pumps shall be used for this source and its light reformate delivery system.

VII. ADDITIONAL REQUIREMENTS.**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Additional requirements for this source are found in Source ID #'s 114, and 128.

*** **Permit Shield in Effect.** ***

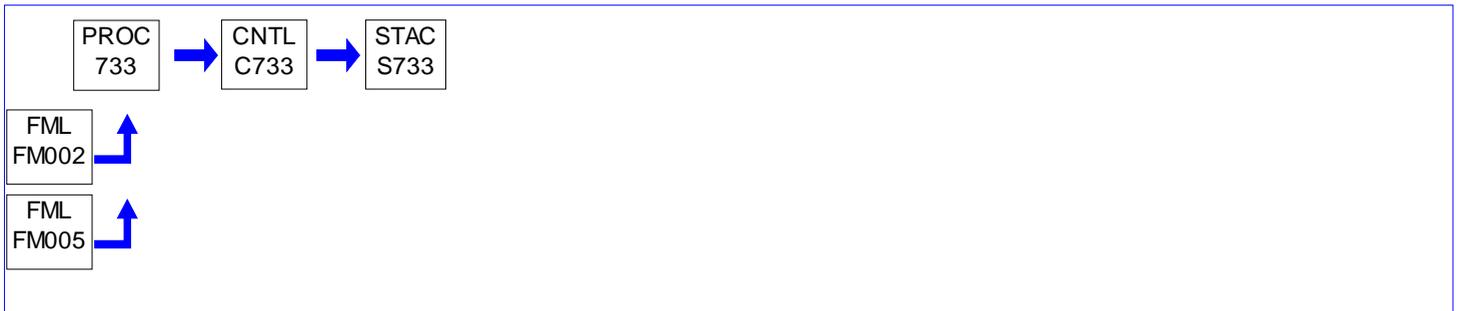
**SECTION D. Source Level Requirements**

Source ID: 733

Source Name: FCCU FEED HEATER

Source Capacity/Throughput: 63.000 MMBTU/HR

87.000 MCF/HR fuel gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.111]****Combustion units**

Particulate matter emissions into the outdoor atmosphere from this combustion unit shall not exceed the rate determined by the following formula:

$$A = 3.6E^{(-0.56)}$$

where

A = Allowable emissions in pounds per million BTUs of heat input, and

E = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 600.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

a. Nitrogen Oxides (NO_x) emissions shall not exceed 0.045 lb/MMBtu and 12.48 tons per year calculated as a 12-month rolling sum.

b. Carbon Monoxide (CO) emissions shall not exceed 400ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average) and 33.1 tons per year calculated as a 12-month rolling sum.

c. Volatile Organic Compounds (VOCs) emissions shall not exceed 2.20 tons per year calculated as a 12-month rolling sum.

d. Particulate Matter (PM) emissions shall not exceed 3.0 tons per year calculated as a 12-month rolling sum.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]**Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall not burn any fuel gas in this source that contains hydrogen sulfide (H₂S) in excess of 162 ppmv (0.10 gr/dscf), 3-hour average, rolling by 1-hour.

[Compliance with this limit assures compliance with 25 Pa. Code §123.22(e)(1)]

Fuel Restriction(s).**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Only the refinery fuel gas and/or natural gas shall be combusted in the FCCU feed heater.

**SECTION D. Source Level Requirements****Throughput Restriction(s).****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The FCCU feed heater heat input shall be limited to 63 MMBtu/hr, or less, calculated as a 365-day rolling average.

II. TESTING REQUIREMENTS.**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

a. The permittee shall conduct a stack test for nitrogen oxides (NO_x) and carbon monoxide (CO) emissions from this source once per permit term, but no less frequent than once every five (5) years.

b. The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139 and with the conditions in Section C: Testing Requirements.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]**Subpart J - Standards of Performance for Petroleum Refineries****Test methods and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) Once every five (5) years, and in accordance with 40 C.F.R. 60.106(e), EPA Method 11 shall be used to determine the H₂S concentration in the fuel gas burned in this source.

(b) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40 C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and the Testing Requirements specified in Condition II, Section C of this permit.

III. MONITORING REQUIREMENTS.**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]****Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall ensure that a Department approved Continuous Emission Monitor (CEM) is continuously monitoring and recording the concentration (dry basis) of Hydrogen Sulfide (H₂S) in refinery fuel gas before being burned in this source. This condition does not apply when the source is burning natural gas.

a. The span value for this CEM is 425 mg/dscm H₂S.

b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned.

c. The performance evaluations for the H₂S monitor under 40 C.F.R. § 60.13(c) shall use Performance Specification 7. EPA Method 11 shall be used for conducting the relative accuracy evaluations.

IV. RECORDKEEPING REQUIREMENTS.**# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep the following records for the unit:

a. The emissions of the pollutant(s) under Emissions Restriction for this unit in tons per month and 12-month rolling sum.

b. The amount of fuel consumed each day the unit is operating.

c. The H₂S content of the fuel consumed on a monthly, and 12-month rolling average, basis.

SECTION D. Source Level Requirements

- d. The BTU content of the fuel consumed each day the unit is operating.
- e. Average firing rate (in MMBtu/hr) each month and each 12 consecutive month period.

V. REPORTING REQUIREMENTS.

**# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]
Subpart J - Standards of Performance for Petroleum Refineries
Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For the purpose of reports under 40 C.F.R. § 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

All 3-hour average, rolling by 1-hour, during which the average concentration of H₂S as measured by the H₂S continuous monitoring system under 40 C.F.R. § 60.105(a)(4) exceeds 162 ppmv (0.10 gr/dscf).

Note: All averages shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]
Subpart J - Standards of Performance for Petroleum Refineries
Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

VI. WORK PRACTICE REQUIREMENTS.

**# 012 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The permittee shall operate and maintain the ultra-low NO_x burners and the new FCCU feed heater in accordance with the manufacturers' specifications as well as good air pollution control practices.

VII. ADDITIONAL REQUIREMENTS.

**# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]
Subpart A - General Provisions
Address.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

40 C.F.R. § 60.4 requires the submittal of all reports, requests, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Section B of this permit.

***** Permit Shield in Effect. *****

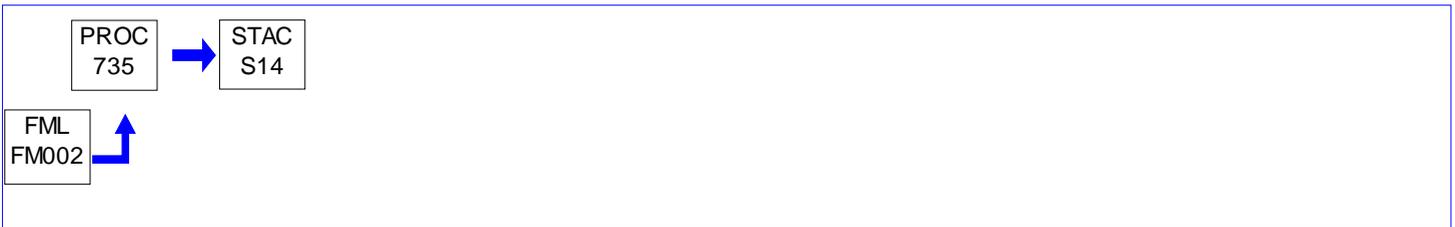
**SECTION D. Source Level Requirements**

Source ID: 735

Source Name: KEROSENE/HCN HTU HEATER

Source Capacity/Throughput: 23.000 MMBTU/HR

28.000 MCF/HR Refinery Gas

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §123.11]

Combustion units

The permittee shall not permit the emission into the outdoor atmosphere of particulate matter from this combustion unit in excess of 0.4 pound per million Btu of heat input.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

(a) Nitrogen Oxides (NO_x) emissions shall not exceed 14.32 tons per year calculated as a 12-month rolling sum.

(b) Carbon Monoxide (CO) emissions shall not exceed 12.09 tons per year as a 12-month rolling sum.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]

Subpart J - Standards of Performance for Petroleum Refineries**Standards for sulfur oxides.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall not burn any fuel gas in this source that contains hydrogen sulfide (H₂S) in excess of 162 ppmv (0.10 gr/dscf), 3-hour average, rolling by 1-hour.

[Compliance with this limit assures compliance with 25 Pa. Code §123.22(e)(1)]

Throughput Restriction(s).

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall limit the heat input of FCC heavy naphtha hydrodesulfurization unit heater to 23 MMBtu/hr, calculated as a 365-day rolling average.

II. TESTING REQUIREMENTS.

005 [25 Pa. Code §127.512]

Operating permit terms and conditions.

The permittee shall test the refinery gas burned in this source, for sulfur content, by monitoring the H₂S content of the fuel gas with a CEM.

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]

Subpart J - Standards of Performance for Petroleum Refineries**Test methods and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) Once every five (5) years, and in accordance with 40 C.F.R. 60.106(e), EPA Method 11 shall be used to determine the H₂S concentration in the fuel gas burned in this source.

(b) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40

**SECTION D. Source Level Requirements**

C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and the Testing Requirements specified in Condition II, Section C of this permit.

III. MONITORING REQUIREMENTS.**# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall monitor the following operating parameters for this source:

- (a) The fuel rate each day.
- (b) The H₂S content of the fuel consumed.
- (c) The Btu content of the fuel consumed.

008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall ensure that a Department approved Continuous Emission Monitor (CEM) is continuously monitoring and recording the concentration (dry basis) of Hydrogen Sulfide (H₂S) in refinery fuel gas before being burned in this source. This condition does not apply when the source is burning natural gas.

- a. The span value for this CEM is 425 mg/dscm H₂S.
- b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned.
- c. The performance evaluations for the H₂S monitor under 40 C.F.R. § 60.13(c) shall use Performance Specification 7. EPA Method 11 shall be used for conducting the relative accuracy evaluations.

IV. RECORDKEEPING REQUIREMENTS.**# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep the following records for the unit:

- a. The emissions of the pollutant(s) under Emissions Restriction for this unit in tons per month and 12-month rolling sum.
- b. The amount of fuel consumed each day the unit is operating.
- c. The H₂S content of the fuel consumed on a monthly, and 12-month rolling average, basis.
- d. The BTU content of the fuel consumed each day the unit is operating.
- e. Average firing rate (in MMBtu/hr) each month and each 12 consecutive month period.

010 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Using EPA and Department approved methods, the permittee shall perform calculations demonstrating compliance with the particulate matter emission limit for this source.

V. REPORTING REQUIREMENTS.**# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The FCC heavy naphtha hydrodesulfurization unit and related emission points and affected sources as specified in 40

SECTION D. Source Level Requirements

C.F.R. §63.640 is subject to Subpart CC of the National Emission Standards for Hazardous Air Pollutants and shall comply with all applicable requirements of this Subpart. 40 C.F.R. §63.13 requires submission of copies of all requests, reports, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Condition #020 of Section B of this permit.

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries
Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For the purpose of reports under 40 C.F.R. § 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

All 3-hour average, rolling by 1-hour, during which the average concentration of H₂S as measured by the H₂S continuous monitoring system under 40 C.F.R. § 60.105(a)(4) exceeds 162 ppmv (0.10 gr/dscf).

Note: All averages shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]**Subpart J - Standards of Performance for Petroleum Refineries
Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.**# 014 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall operate and maintain the FCC heavy naphtha hydrodesulfurization unit in accordance with manufacturer's specifications as well as good air pollution control practices.

015 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]**Subpart A - General Provisions
Address.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

40 C.F.R. § 60.4 requires the submittal of all reports, requests, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Section B of this permit.

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 736

Source Name: DIESEL HTU HEATER

Source Capacity/Throughput: 39.000 MMBTU/HR

39.000 MCF/HR Refinery Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

The permittee shall not permit the emission into the outdoor atmosphere of particulate matter from this combustion unit in excess of 0.4 pound per million Btu of heat input.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) Nitrogen Oxides (NO_x) emissions shall not exceed 24.36 tons per year calculated as a 12-month rolling sum.

(b) Carbon Monoxide (CO) emissions shall not exceed 14.2 tons per year calculated as a 12-month rolling sum.

(c) Volatile Organic Compounds (VOCs) emissions shall not exceed 3.4 tons per year calculated as a 12-month rolling sum.

(d) Particulate Matter (PM) emissions shall not exceed 1.5 tons per year calculated as a 12-month rolling sum.

(e) The permittee shall calculate emissions using emission factors developed from the most recent emissions test approved by the Department.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]**Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall not burn any fuel gas in this source that contains hydrogen sulfide (H₂S) in excess of 162 ppmv (0.10 gr/dscf), 3-hour average, rolling by 1-hour.

[Compliance with this limit assures compliance with 25 Pa. Code §123.22(e)(1)]

II. TESTING REQUIREMENTS.**# 004 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The permittee shall test the refinery gas burned in this source, for sulfur content, by monitoring the H₂S content of the fuel gas with a CEM.

005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]**Subpart J - Standards of Performance for Petroleum Refineries****Test methods and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) Once every five (5) years, and in accordance with 40 C.F.R. 60.106(e), EPA Method 11 shall be used to determine the H₂S concentration in the fuel gas burned in this source.

**SECTION D. Source Level Requirements**

(b) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40 C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and the Testing Requirements specified in Condition II, Section C of this permit.

III. MONITORING REQUIREMENTS.**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall monitor the following operating parameters for this source:

- (a) The fuel rate each day.
- (b) The H₂S content of the fuel consumed.
- (c) The Btu content of the fuel consumed.

007 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The permittee shall monitor NO_x, CO, and oxygen from this source following the annual combustion tuning, using a Department approved method.

008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries
Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall ensure that a Department approved Continuous Emission Monitor (CEM) is continuously monitoring and recording the concentration (dry basis) of Hydrogen Sulfide (H₂S) in refinery fuel gas before being burned in this source. This condition does not apply when the source is burning natural gas.

- a. The span value for this CEM is 425 mg/dscm H₂S.
- b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned.
- c. The performance evaluations for the H₂S monitor under 40 C.F.R. § 60.13(c) shall use Performance Specification 7. EPA Method 11 shall be used for conducting the relative accuracy evaluations.

IV. RECORDKEEPING REQUIREMENTS.**# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep the following records for the unit:

- a. The emissions of the pollutant(s) under Emissions Restriction for this unit in tons per month and 12-month rolling sum.
- b. The amount of fuel consumed each day the unit is operating.
- c. The H₂S content of the fuel consumed on a monthly, and 12-month rolling average, basis.
- d. The BTU content of the fuel consumed each day the unit is operating.
- e. Average firing rate (in MMBtu/hr) each month and each 12 consecutive month period.

010 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Using EPA and Department approved methods, the permittee shall perform calculations demonstrating compliance with the particulate matter emission limit for this source.

**SECTION D. Source Level Requirements****# 011 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The permittee shall record each adjustment conducted in the annual tune-up for this source in a permanently bound log book, or other Department approved method. This log shall contain, at a minimum, the following information:

- (a) The date of the tuning procedure.
- (b) The name of the service company and technicians.
- (c) The final operating rate or load.
- (d) The final CO and NOx emission rates.
- (e) The final excess oxygen rate.

V. REPORTING REQUIREMENTS.**# 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]****Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For the purpose of reports under 40 C.F.R. § 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

All 3-hour average, rolling by 1-hour, during which the average concentration of H₂S as measured by the H₂S continuous monitoring system under 40 C.F.R. § 60.105(a)(4) exceeds 162 ppmv (0.10 gr/dscf).

Note: All averages shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]**Subpart J - Standards of Performance for Petroleum Refineries****Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

VI. WORK PRACTICE REQUIREMENTS.**# 014 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) The permittee shall perform an annual tune-up on this combustion process which includes, but not be limited to, the following:

- (1) Inspection, adjustment, cleaning or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.
- (2) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NO_x, and, to the extent practicable, minimize the emissions of CO.
- (3) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer.

(b) The permittee shall make the annual adjustment described above in accordance with the EPA document "Combustion Efficiency Optimization Manual for Operators of Oil and Gas-fired Boilers," September 1983 (EPA-340/1-83-023).

VII. ADDITIONAL REQUIREMENTS.**# 015 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]**

**SECTION D. Source Level Requirements****Subpart A - General Provisions****Address.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

40 C.F.R. § 60.4 requires the submittal of all reports, requests, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Section B of this permit.

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 737

Source Name: NAPHTHA HDS HEATER

Source Capacity/Throughput: 65.000 MMBTU/HR

93.000 MCF/HR Refinery Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

Particulate matter emissions into the outdoor atmosphere from this combustion unit shall not exceed the rate determined by the following formula:

$$A = 3.6E^{(-0.56)}$$

where

A = Allowable emissions in pounds per million BTUs of heat input, and

E = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 600.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.91]

NOx emissions shall not exceed 0.2 lb/MMBtu, on a 30-day rolling average, when firing refinery fuel gas.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]**Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall not burn any fuel gas in this source that contains hydrogen sulfide (H₂S) in excess of 162 ppmv (0.10 gr/dscf), 3-hour average, rolling by 1-hour.

[Compliance with this limit assures compliance with 25 Pa. Code §123.22(e)(1)]

II. TESTING REQUIREMENTS.**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]****Subpart J - Standards of Performance for Petroleum Refineries****Test methods and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) Once every five (5) years, and in accordance with 40 C.F.R. 60.106(e), EPA Method 11 shall be used to determine the H₂S concentration in the fuel gas burned in this source.

(b) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40 C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and the Testing Requirements specified in Condition II, Section C of this permit.

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall monitor the following operating parameters for this source:

- (a) The fuel rate each day.
- (b) H₂S content of the fuel consumed.
- (c) The BTU content of the fuel consumed.

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall ensure that a Department approved Continuous Emission Monitor (CEM) is continuously monitoring and recording the concentration (dry basis) of Hydrogen Sulfide (H₂S) in refinery fuel gas before being burned in this source. This condition does not apply when the source is burning natural gas.

- a. The span value for this CEM is 425 mg/dscm H₂S.
- b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned.
- c. The performance evaluations for the H₂S monitor under 40 C.F.R. § 60.13(c) shall use Performance Specification 7. EPA Method 11 shall be used for conducting the relative accuracy evaluations.

IV. RECORDKEEPING REQUIREMENTS.**# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep the following records for the unit:

- a. The emissions of the pollutant(s) under Emissions Restriction for this unit in tons per month and 12-month rolling sum.
- b. The amount of fuel consumed each day the unit is operating.
- c. The H₂S content of the fuel consumed on a monthly, and 12-month rolling average, basis.
- d. The BTU content of the fuel consumed each day the unit is operating.
- e. Average firing rate (in MMBtu/hr) each month and each 12 consecutive month period.

008 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Each adjustment conducted under the tune-up procedures for this source, shall be recorded in a permanently bound log book, or other Department approved method, and contain the following:

- (a) The date of the tuning procedure.
- (b) The name of the service company and technician.
- (c) The final operating rate or load.
- (d) The final CO and NO_x emission rates.
- (e) The final excess oxygen rate.

V. REPORTING REQUIREMENTS.**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**

SECTION D. Source Level Requirements**Subpart J - Standards of Performance for Petroleum Refineries
Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For the purpose of reports under 40 C.F.R. § 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

All 3-hour average, rolling by 1-hour, during which the average concentration of H₂S as measured by the H₂S continuous monitoring system under 40 C.F.R. § 60.105(a)(4) exceeds 162 ppmv (0.10 gr/dscf).

Note: All averages shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

**# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]
Subpart J - Standards of Performance for Petroleum Refineries
Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

VI. WORK PRACTICE REQUIREMENTS.**# 011 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

a The permittee shall perform an annual tune-up on the combustion process for this source. The annual tune-up shall consist of, at a minimum, the following:

- (1) Inspection, adjustment, cleaning or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.
- (2) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NO_x, and to the extent practicable, minimize the emissions of CO.
- (3) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer.

b The annual combustion tune-up shall be made in accordance with EPA document "Combustion Efficiency Optimization Manual for Operators of Oil and Gas-fired Boilers," September 1983 (EPA-340/1-83-023) or equivalent procedures approved by the Department in writing.

VII. ADDITIONAL REQUIREMENTS.**# 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]
Subpart A - General Provisions
Address.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

40 C.F.R. § 60.4 requires the submittal of all reports, requests, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Section B of this permit.

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 738

Source Name: PLATFORMER FEED HEATER

Source Capacity/Throughput: 913.000 MMBTU/HR

1,310.000 MCF/HR Refinery Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

Particulate matter emission into the outdoor atmosphere from this combustion unit shall not exceed the rate of 0.1 pounds per million Btu of heat input.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The emissions from this source shall not exceed either of the following:

(a) NO_x emissions:

- (1) 0.12 lbs/MMBtu; and
- (2) 317.0 tons in any 12 consecutive month period.

(b) The permittee shall not exceed SO₂ emissions limit of 0.011 lbs/MMBtu on a 12-month rolling average, calculated monthly.

Fuel Restriction(s).**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Only RFG and/or natural gas shall be fired in this source.

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]**Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

The permittee shall not burn in this source any fuel gas that contains H₂S in excess of

- (a) 162 ppmv (0.10 gr/dscf) determined hourly on a 3-hour rolling average basis; and
- (b) 48 ppmv on a 12-month rolling average, calculated monthly.

Throughput Restriction(s).**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

This source shall be limited to a 12 consecutive month average firing rate of 750 MMBtu/hr, when firing on RFG.

II. TESTING REQUIREMENTS.**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall perform a stack test using the Department approved procedures, every five (5) years or once within the life of the permit. Such testing shall be conducted at least twelve (12) months prior to the expiration of this permit. The

**SECTION D. Source Level Requirements**

stack test results shall be submitted for review no later than six (6) months before the permit expiration.

(b) The stack test shall, at a minimum, test for the NO_x and CO. Tests shall be conducted in accordance with EPA test methods, 25 Pa. Code Chapter 139, and the testing requirements found in Section C of this operating permit.

(c) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40 C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and the Testing Requirements specified in Condition II, Section C of this permit.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]**Subpart J - Standards of Performance for Petroleum Refineries****Test methods and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) Once every five (5) years, and in accordance with 40 C.F.R. 60.106(e), EPA Method 11 shall be used to determine the H₂S concentration in the fuel gas burned in this source.

(b) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40 C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and the Testing Requirements specified in Condition II, Section C of this permit.

III. MONITORING REQUIREMENTS.**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall monitor and record NO_x, CO and oxygen from this source following the annual combustion tuning, using a Department approved method.

(b) The fuel usage shall be monitored and recorded each day the source is operating.

(c) The Btu content of the RFG shall be monitored and recorded on a daily basis, when the source is operating.

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall ensure that a Department approved Continuous Emission Monitor (CEM) is continuously monitoring and recording the concentration (dry basis) of Hydrogen Sulfide (H₂S) in refinery fuel gas before being burned in this source. This condition does not apply when the source is burning natural gas.

a. The span value for this CEM is 425 mg/dscm H₂S.

b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned.

c. The performance evaluations for the H₂S monitor under 40 C.F.R. § 60.13(c) shall use Performance Specification 7. EPA Method 11 shall be used for conducting the relative accuracy evaluations.

IV. RECORDKEEPING REQUIREMENTS.**# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep the following records for the unit:

a. The emissions of the pollutant(s) under Emissions Restriction for this unit in tons per month and 12-month rolling sum.

SECTION D. Source Level Requirements

- b. The amount of fuel consumed each day the unit is operating.
- c. The H₂S content of the fuel consumed on a monthly, and 12-month rolling average, basis.
- d. The BTU content of the fuel consumed each day the unit is operating.
- e. Average firing rate (in MMBtu/hr) each month and each 12 consecutive month period.

011 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) Each adjustment conducted for this source shall be recorded in a permanently bound book, or other Department approved method. The following information shall, at a minimum, be recorded:

- (1) The date of the tuning or adjustment.
- (2) The name of the service company and technicians.
- (3) The final operating rate or load.
- (4) The final CO and NO_x emission rates.
- (5) The final excess oxygen rate.

(b) Demonstration of compliance with the H₂S limit for this source shall be documented through the use of the Department approved CEMS data.

V. REPORTING REQUIREMENTS.**# 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]****Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For the purpose of reports under 40 C.F.R. § 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

All 3-hour average, rolling by 1-hour, during which the average concentration of H₂S as measured by the H₂S continuous monitoring system under 40 C.F.R. § 60.105(a)(4) exceeds 162 ppmv (0.10 gr/dscf).

Note: All averages shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]**Subpart J - Standards of Performance for Petroleum Refineries****Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

VI. WORK PRACTICE REQUIREMENTS.**# 014 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[The following RACT requirements are SIPped by the US EPA, and derived from 25 Pa. Code §§129.91 through 129.95.]

(a) In order to comply with RACT, an annual tune-up shall be conducted on this source. The annual tune-up shall include, but not be limited to, the following:

- (1) Inspection, adjustment, cleaning or replacement of fuel burning equipment, including the burners and moving parts

**SECTION D. Source Level Requirements**

necessary for proper operation as specified by the manufacturer.

(2) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NO_x, and, to the extent practicable, minimize the emissions of CO.

(3) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration as specified by the manufacturer.

(b) The annual combustion tune-up shall be made in accordance with EPA document "Combustion Efficiency Optimization Manual for Operators of Oil and Gas-fired Boilers," September 1983 (EPA-340/1-83-023) or equivalent procedures approved by the Department in writing.

(c) VOC emissions shall be minimized by annual combustion tuning, good operating practices and good air pollution control practices.

(d) The fuel for this source shall be combusted through twenty-four (24) Ultra Low-NO_x Burners (ULNB) (installed in 2006) and the eighty-four (84) previously installed Low NO_x Burners (LNB) that satisfied RACT.

VII. ADDITIONAL REQUIREMENTS.

015 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]

Subpart A - General Provisions

Address.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

40 C.F.R. § 60.4 requires the submittal of all reports, requests, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Section B of this permit.

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 739

Source Name: ISOCRACKER 1ST STAGE HEATER.

Source Capacity/Throughput: 50.000 MMBTU/HR

80.000 MCF/HR Refinery Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

Particulate matter emissions into the outdoor atmosphere from this combustion unit shall not exceed the rate determined by the following formula:

$$A = 3.6E^{(-0.56)}$$

where

A = Allowable emissions in pounds per million BTUs of heat input, and

E = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 600.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.91.]

When firing on refinery fuel gas (RFG), emissions shall not exceed the following:

- (a) NO_x - 0.2 lbs/MMBtu, on a 30-day rolling average and 30.66 tons in any 12 consecutive month period; and
- (b) SO₂ - 0.011 lbs/MMBtu, on a 12-month rolling average, calculated monthly.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]**Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall not burn any fuel gas in this source that contains hydrogen sulfide (H₂S) in excess of 162 ppmv (0.10 gr/dscf), 3-hour average, rolling by 1-hour.

[Compliance with this limit assures compliance with 25 Pa. Code §123.22(e)(1)]

Fuel Restriction(s).**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

H₂S concentration in the fuel gas shall not exceed 48 ppmv on a 12-month rolling average, calculated monthly.

Throughput Restriction(s).**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The source shall be limited to an annual average firing rate of 50 MMBtu/hr, when firing on RFG.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.****# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]****Subpart J - Standards of Performance for Petroleum Refineries****Test methods and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) Once every five (5) years, and in accordance with 40 C.F.R. 60.106(e), EPA Method 11 shall be used to determine the H₂S concentration in the fuel gas burned in this source.

(b) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40 C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and the Testing Requirements specified in Condition II, Section C of this permit.

III. MONITORING REQUIREMENTS.**# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall monitor the following operating parameters for this source:

- (a) The fuel rate each day.
- (b) The H₂S content of the fuel consumed.
- (c) The BTU content of the fuel consumed.

008 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**The permittee shall monitor the NO_x, CO and oxygen from this source following the annual combustion tuning using a Department approved method.**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]****Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall ensure that a Department approved Continuous Emission Monitor (CEM) is continuously monitoring and recording the concentration (dry basis) of Hydrogen Sulfide (H₂S) in refinery fuel gas before being burned in this source. This condition does not apply when the source is burning natural gas.

- a. The span value for this CEM is 425 mg/dscm H₂S.
- b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned.
- c. The performance evaluations for the H₂S monitor under 40 C.F.R. § 60.13(c) shall use Performance Specification 7. EPA Method 11 shall be used for conducting the relative accuracy evaluations.

IV. RECORDKEEPING REQUIREMENTS.**# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep the following records for the unit:

- a. The emissions of the pollutant(s) under Emissions Restriction for this unit in tons per month and 12-month rolling sum.
- b. The amount of fuel consumed each day the unit is operating.
- c. The H₂S content of the fuel consumed on a monthly, and 12-month rolling average, basis.

**SECTION D. Source Level Requirements**

d. The BTU content of the fuel consumed each day the unit is operating.

e. Average firing rate (in MMBtu/hr) each month and each 12 consecutive month period.

011 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The permittee shall record each adjustment conducted during the annual tune-up in a permanently bound logbook, or other Department approved method. This log shall contain the following information:

- (a) The date of the tuning procedure.
- (b) The name of the service company and technicians.
- (c) The final operating rate or load.
- (d) The final CO and NOX emission rates.
- (e) The final excess oxygen rate.

012 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Demonstration of compliance with the H₂S limit for this source shall be documented through the use of the Department approved CEMS data.

V. REPORTING REQUIREMENTS.**# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]****Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For the purpose of reports under 40 C.F.R. § 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

All 3-hour average, rolling by 1-hour, during which the average concentration of H₂S as measured by the H₂S continuous monitoring system under 40 C.F.R. § 60.105(a)(4) exceeds 162 ppmv (0.10 gr/dscf).

Note: All averages shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]**Subpart J - Standards of Performance for Petroleum Refineries****Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

VI. WORK PRACTICE REQUIREMENTS.**# 015 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) The permittee shall ensure that Reasonable Available Control Technology (RACT) for this source includes an annual tune-up which includes, but is not limited to the following:
 - (1) Inspection, adjustment, cleaning, or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.
 - (2) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NO_x, and to the extent practicable, minimize the emissions of CO.
 - (3) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer.

**SECTION D. Source Level Requirements**

(b) The permittee shall, during the annual tune-up, make the necessary adjustments in accordance with the EPA document "Combustion Efficiency Optimization Manual for Operators of Oil and Gas-fired Boilers," September 1983 (EPA-340/1-83-023) or equivalent procedures approved in writing by the document.

VII. ADDITIONAL REQUIREMENTS.

016 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]

Subpart A - General Provisions

Address.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

40 C.F.R. § 60.4 requires the submittal of all reports, requests, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Section B of this permit.

***** Permit Shield in Effect. *****

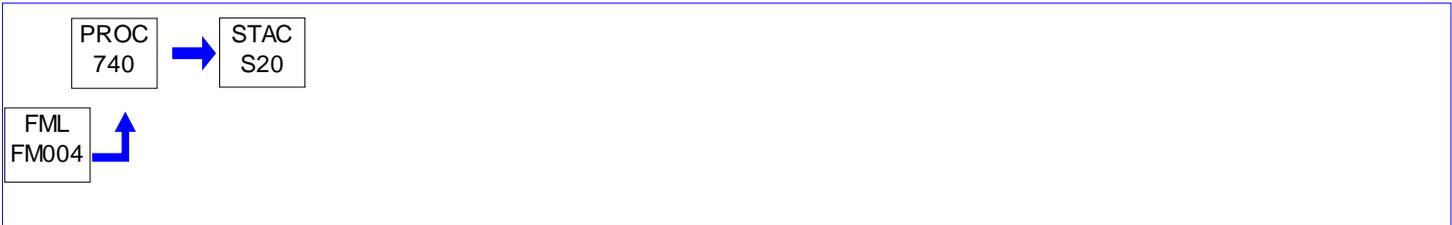
SECTION D. Source Level Requirements

Source ID: 740

Source Name: ISOCRACKER SPLITTER RBLR

Source Capacity/Throughput: 76.000 MMBTU/HR

109.000 MCF/HR Refinery Gas



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.11]

Combustion units

Particulate matter emissions into the outdoor atmosphere from this combustion unit shall not exceed the rate determined by the following formula:

$$A = 3.6E^{(-0.56)}$$

where

A = Allowable emissions in pounds per million BTUs of heat input, and

E = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 600.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.91.]

NOx emissions from this source shall not exceed 0.45 lbs/MMBtu, on a 30-day rolling average, when firing on refinery fuel gas.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]

Subpart J - Standards of Performance for Petroleum Refineries

Standards for sulfur oxides.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall not burn any fuel gas in this source that contains hydrogen sulfide (H2S) in excess of 162 ppmv (0.10 gr/dscf), 3-hour average, rolling by 1-hour.

[Compliance with this limit assures compliance with 25 Pa. Code §123.22(e)(1)]

II. TESTING REQUIREMENTS.

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]

Subpart J - Standards of Performance for Petroleum Refineries

Test methods and procedures.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) Once every five (5) years, and in accordance with 40 C.F.R. 60.106(e), EPA Method 11 shall be used to determine the H2S concentration in the fuel gas burned in this source.

(b) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40 C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and the Testing Requirements specified in Condition II, Section C of this permit.

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall monitor the following operating parameters for this source:

- (a) The fuel rate each day.
- (b) The H₂S content of the fuel consumed.
- (c) The BTU content of the fuel consumed.

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall ensure that a Department approved Continuous Emission Monitor (CEM) is continuously monitoring and recording the concentration (dry basis) of Hydrogen Sulfide (H₂S) in refinery fuel gas before being burned in this source. This condition does not apply when the source is burning natural gas.

- a. The span value for this CEM is 425 mg/dscm H₂S.
- b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned.
- c. The performance evaluations for the H₂S monitor under 40 C.F.R. § 60.13(c) shall use Performance Specification 7. EPA Method 11 shall be used for conducting the relative accuracy evaluations.

IV. RECORDKEEPING REQUIREMENTS.**# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep the following records for the unit:

- a. The emissions of the pollutant(s) under Emissions Restriction for this unit in tons per month and 12-month rolling sum.
- b. The amount of fuel consumed each day the unit is operating.
- c. The H₂S content of the fuel consumed on a monthly, and 12-month rolling average, basis.
- d. The BTU content of the fuel consumed each day the unit is operating.
- e. Average firing rate (in MMBtu/hr) each month and each 12 consecutive month period.

008 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Each adjustment conducted under the tune-up procedures for this source shall be recorded in a permanently bound log book, or other Department approved method, and contain the following:

- (a) The date of the tuning procedure.
- (b) The name of the service company and technician.
- (c) The final operating rate or load.
- (d) The final CO and NO_x emission rates.
- (e) The final excess oxygen rate.

009 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Demonstration of compliance with the H₂S limit for this source shall be documented through the use of the Department approved CEMS data.

**SECTION D. Source Level Requirements****V. REPORTING REQUIREMENTS.****# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]****Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For the purpose of reports under 40 C.F.R. § 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

All 3-hour average, rolling by 1-hour, during which the average concentration of H₂S as measured by the H₂S continuous monitoring system under 40 C.F.R. § 60.105(a)(4) exceeds 162 ppmv (0.10 gr/dscf).

Note: All averages shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]**Subpart J - Standards of Performance for Petroleum Refineries****Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

VI. WORK PRACTICE REQUIREMENTS.**# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall perform an annual tune-up on the combustion process for this source. The annual tune-up shall consist of, at a minimum, the following:

(1) Inspection, adjustment, cleaning or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.

(2) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NO_x, and to the extent practicable, minimize the emissions of CO.

(3) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer.

(b) The annual combustion tune-up shall be made in accordance with EPA document "Combustion Efficiency Optimization Manual for Operators of Oil and Gas-fired Boilers," September 1983 (EPA-340/1-83-023) or equivalent procedures approved by the Department in writing.

VII. ADDITIONAL REQUIREMENTS.**# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]****Subpart A - General Provisions****Address.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

40 C.F.R. § 60.4 requires the submittal of all reports, requests, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Section B of this permit.

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 741

Source Name: D2/VGO HYDROTREATER FEED HEATER

Source Capacity/Throughput: 56.000 MMBTU/HR

80.000 MCF/HR

Refinery Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

Particulate matter emissions into the outdoor atmosphere from this combustion unit shall not exceed the rate determined by the following formula:

$$A = 3.6E^{(-0.56)}$$

where

A = Allowable emissions in pounds per million BTUs of heat input, and

E = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 600.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.91.]

NO_x emissions from this source shall not exceed 0.32 lbs/MMBtu, on a 30-day rolling average, when firing on refinery fuel gas.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]**Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall not burn any fuel gas in this source that contains hydrogen sulfide (H₂S) in excess of 162 ppmv (0.10 gr/dscf), 3-hour average, rolling by 1-hour.

[Compliance with this limit assures compliance with 25 Pa. Code §123.22(e)(1)]

II. TESTING REQUIREMENTS.**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]****Subpart J - Standards of Performance for Petroleum Refineries****Test methods and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) Once every five (5) years, and in accordance with 40 C.F.R. 60.106(e), EPA Method 11 shall be used to determine the H₂S concentration in the fuel gas burned in this source.

(b) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40 C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and the Testing Requirements specified in Condition II, Section C of this permit.

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall monitor the NO_x, CO, and oxygen from this source following the annual combustion tuning using a Department approved method.

006 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The permittee shall monitor the following operating parameters for this source:

- (a) The fuel rate each day.
- (b) The H₂S content of the fuel consumed.
- (c) The BTU content of the fuel consumed.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall ensure that a Department approved Continuous Emission Monitor (CEM) is continuously monitoring and recording the concentration (dry basis) of Hydrogen Sulfide (H₂S) in refinery fuel gas before being burned in this source. This condition does not apply when the source is burning natural gas.

- a. The span value for this CEM is 425 mg/dscm H₂S.
- b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned.
- c. The performance evaluations for the H₂S monitor under 40 C.F.R. § 60.13(c) shall use Performance Specification 7. EPA Method 11 shall be used for conducting the relative accuracy evaluations.

IV. RECORDKEEPING REQUIREMENTS.**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep the following records for the unit:

- a. The emissions of the pollutant(s) under Emissions Restriction for this unit in tons per month and 12-month rolling sum.
- b. The amount of fuel consumed each day the unit is operating.
- c. The H₂S content of the fuel consumed on a monthly, and 12-month rolling average, basis.
- d. The BTU content of the fuel consumed each day the unit is operating.
- e. Average firing rate (in MMBtu/hr) each month and each 12 consecutive month period.

009 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) The permittee shall ensure that all adjustments conducted during the annual tune-up be recorded in a permanently bound log book, or other Department approved method. The following information, at a minimum, shall be recorded:

- (1) The date of the tuning procedure.
- (2) The name of the service company and technicians.
- (3) The final operating rate or load.
- (4) The final CO and NO_x emission rates.
- (5) The final excess oxygen rate.

(b) The permittee shall keep records of all test results and the annual tune-up records for a minimum of five (5) years.

**SECTION D. Source Level Requirements****V. REPORTING REQUIREMENTS.****# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]****Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For the purpose of reports under 40 C.F.R. § 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

All 3-hour average, rolling by 1-hour, during which the average concentration of H₂S as measured by the H₂S continuous monitoring system under 40 C.F.R. § 60.105(a)(4) exceeds 162 ppmv (0.10 gr/dscf).

Note: All averages shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]**Subpart J - Standards of Performance for Petroleum Refineries****Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

VI. WORK PRACTICE REQUIREMENTS.**# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall ensure that an annual RACT combustion tune-up be conducted on this source and it conforms with the following requirements:

- (1) Inspection, adjustment, cleaning or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.
- (2) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NO_x, and, to the extent practicable, minimize the emissions of CO.
- (3) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer.

(b) The annual combustion tune-up shall be made in accordance with EPA document "Combustion Efficiency Optimization Manual for Operators of Oil and Gas-fired Boilers," September 1983 (EPA-340/1-83-023) or equivalent procedures approved by the Department in writing.

013 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Emissions of volatile organic compounds (VOCs) shall be minimized by annual combustion tuning and good operating and air pollution control practices.

VII. ADDITIONAL REQUIREMENTS.**# 014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]****Subpart A - General Provisions****Address.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

40 C.F.R. § 60.4 requires the submittal of all reports, requests, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Section B of this permit.

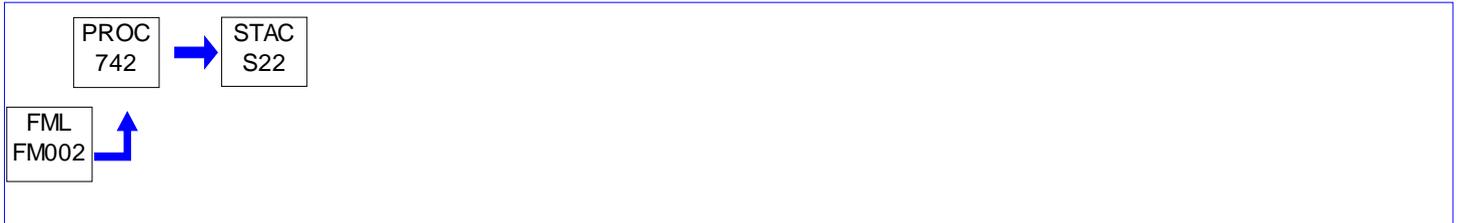
*** **Permit Shield in Effect.** ***

**SECTION D. Source Level Requirements**

Source ID: 742

Source Name: VCD 541 VAC HEATER

Source Capacity/Throughput:	56.000	MMBTU/HR	
	80.000	MCF/HR	Refinery Gas
	100.000	MCF/HR	Natural Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

Particulate matter emissions into the outdoor atmosphere from this combustion unit shall not exceed the rate determined by the following formula:

$$A = 3.6E^{(-0.56)}$$

where

A = Allowable emissions in pounds per million BTUs of heat input, and

E = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 600.

002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]**Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall not burn any fuel gas in this source that contains hydrogen sulfide (H₂S) in excess of 162 ppmv (0.10 gr/dscf), 3-hour average, rolling by 1-hour.

[Compliance with this limit assures compliance with 25 Pa. Code §123.22(e)(1)]

Fuel Restriction(s).**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

This source shall only operate on refinery fuel gas or natural gas.

II. TESTING REQUIREMENTS.**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]****Subpart J - Standards of Performance for Petroleum Refineries****Test methods and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) Once every five (5) years, and in accordance with 40 C.F.R. 60.106(e), EPA Method 11 shall be used to determine the H₂S concentration in the fuel gas burned in this source.

(b) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40 C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and the Testing Requirements specified in Condition II, Section C of this permit.

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall monitor the following operating parameters for this source:

- (a) The fuel rate and type of fuel(s) consumed each day.
- (b) H₂S (from CEM) content of the fuel, when firing refinery fuel gas.
- (c) The BTU content of the fuel consumed.

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall ensure that a Department approved Continuous Emission Monitor (CEM) is continuously monitoring and recording the concentration (dry basis) of Hydrogen Sulfide (H₂S) in refinery fuel gas before being burned in this source. This condition does not apply when the source is burning natural gas.

- a. The span value for this CEM is 425 mg/dscm H₂S.
- b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned.
- c. The performance evaluations for the H₂S monitor under 40 C.F.R. § 60.13(c) shall use Performance Specification 7. EPA Method 11 shall be used for conducting the relative accuracy evaluations.

IV. RECORDKEEPING REQUIREMENTS.**# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep the following records for the unit:

- a. The emissions of the pollutant(s) under Emissions Restriction for this unit in tons per month and 12-month rolling sum.
- b. The amount of fuel consumed each day the unit is operating.
- c. The H₂S content of the fuel consumed on a monthly, and 12-month rolling average, basis.
- d. The BTU content of the fuel consumed each day the unit is operating.
- e. Average firing rate (in MMBtu/hr) each month and each 12 consecutive month period.

V. REPORTING REQUIREMENTS.**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]****Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For the purpose of reports under 40 C.F.R. § 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

All 3-hour average, rolling by 1-hour, during which the average concentration of H₂S as measured by the H₂S continuous monitoring system under 40 C.F.R. § 60.105(a)(4) exceeds 162 ppmv (0.10 gr/dscf).

Note: All averages shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

**SECTION D. Source Level Requirements**

**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]
Subpart J - Standards of Performance for Petroleum Refineries
Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

VI. WORK PRACTICE REQUIREMENTS.

**# 010 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The CEM system(s) for H₂S, as previously approved by the Department, must be operated and maintained in accordance with the quality assurance, recordkeeping and reporting requirements of Chapter 139 of the Department of Environmental Protection's Rules and Regulations and the Department's Continuous Source Monitoring Manual. The required data reports shall be submitted to the Department's Central Office, in hardcopy and computer readable-media formats as specified by the Department, within thirty (30) days following the close of each calendar quarter.

VII. ADDITIONAL REQUIREMENTS.

**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]
Subpart A - General Provisions
Address.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

40 C.F.R. § 60.4 requires the submittal of all reports, requests, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Section B of this permit.

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 743

Source Name: VCD 542 VAC HEATER

Source Capacity/Throughput:	72.000	MMBTU/HR	
	103.000	MCF/HR	Refinery Gas
	100.000	MCF/HR	Natural Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

Particulate matter emissions into the outdoor atmosphere from this combustion unit shall not exceed the rate determined by the following formula:

$$A = 3.6E^{(-0.56)}$$

where

A = Allowable emissions in pounds per million BTUs of heat input, and

E = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 600.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The following emission limits shall not be exceeded:

- (a) VOCs - 0.18 lbs/hr, and 0.79 tons in any 12 consecutive month period.
- (b) NOx - 10.8 lbs/hr, and 31.3 tons in any 12 consecutive month period.
- (c) SO₂ - 1.78 lbs/hr, and 7.8 tons in any 12 consecutive month period.
- (d) CO - 4.0 lbs/hr, and 13.8 tons in any 12 consecutive month period.
- (e) PM - 1.0 lbs/hr, and 3.1 tons in any 12 consecutive month period. [Compliance with these limits assures compliance with 25 Pa. Code §123.11(a)(2).]

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]**Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall not burn any fuel gas in this source that contains hydrogen sulfide (H₂S) in excess of 162 ppmv (0.10 gr/dscf), 3-hour average, rolling by 1-hour.

[Compliance with this limit assures compliance with 25 Pa. Code §123.22(e)(1)]

Fuel Restriction(s).**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) This source shall only fire refinery fuel gas or natural gas.
- (b) The amount of refinery gas combusted in this source shall not exceed 72 MMBtu/hr on a daily basis and 500,550 MMBtus calculated on a 365 day rolling period.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.****# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]****Subpart J - Standards of Performance for Petroleum Refineries****Test methods and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) Once every five (5) years, and in accordance with 40 C.F.R. 60.106(e), EPA Method 11 shall be used to determine the H₂S concentration in the fuel gas burned in this source.

(b) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40 C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and the Testing Requirements specified in Condition II, Section C of this permit.

III. MONITORING REQUIREMENTS.**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall monitor the NO_x, CO, and oxygen from this source following the annual combustion tuning, using a Department approved method.

(b) The permittee shall monitor the following using a gas chromatograph and fuel gas meters, or DEP approved procedure:

- (1) The daily heat content,
- (2) Flow rate of the refinery fuel gas, and
- (3) The daily heat input to the source.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall ensure that a Department approved Continuous Emission Monitor (CEM) is continuously monitoring and recording the concentration (dry basis) of Hydrogen Sulfide (H₂S) in refinery fuel gas before being burned in this source. This condition does not apply when the source is burning natural gas.

a. The span value for this CEM is 425 mg/dscm H₂S.

b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned.

c. The performance evaluations for the H₂S monitor under 40 C.F.R. § 60.13(c) shall use Performance Specification 7. EPA Method 11 shall be used for conducting the relative accuracy evaluations.

IV. RECORDKEEPING REQUIREMENTS.**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain records of the following operating parameters for this source:

- (1) The fuel rate and type of fuel(s) consumed each day.
- (2) H₂S content of the fuel, when firing refinery fuel gas.
- (3) The BTU content of the fuel consumed.

(b) The permittee shall keep records of the PM, SO_x and NO_x emission calculations used to verify the corresponding emission limits for this source.

SECTION D. Source Level Requirements**# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep the following records for the unit:

- a. The emissions of the pollutant(s) under Emissions Restriction for this unit in tons per month and 12-month rolling sum.
- b. The amount of fuel consumed each day the unit is operating.
- c. The H₂S content of the fuel consumed on a monthly, and 12-month rolling average, basis.
- d. The BTU content of the fuel consumed each day the unit is operating.
- e. Average firing rate (in MMBtu/hr) each month and each 12 consecutive month period.

010 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) The permittee shall record in a permanently bound log book, or other Department approved method, each adjustment conducted during the annual tune-up to the combustion process of this source. The following parameters, at a minimum, shall be recorded:

- (1) The date of the tuning procedure.
- (2) The name of the service company and technicians.
- (3) The final operating rate or load.
- (4) The final CO and NO_x emission rates.
- (5) The final excess oxygen rate.

(b) The permittee shall keep records of the following:

- (1) The average hourly heat input to this source.
- (2) The MMBtu/yr, calculated on a 365-day rolling basis.

V. REPORTING REQUIREMENTS.**# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The CEM system(s) for H₂S, as approved by the Department, must be operated and maintained in accordance with the quality assurance, recordkeeping and reporting requirements of Chapter 139 of the Department of Environmental Protection's Rules and Regulations and the Department's Continuous Source Monitoring Manual. The required data reports shall be submitted to the Department's Central Office, in hardcopy and computer readable-media formats as specified by the Department, within thirty (30) days following the close of each calendar quarter.

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For the purpose of reports under 40 C.F.R. § 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

All 3-hour average, rolling by 1-hour, during which the average concentration of H₂S as measured by the H₂S continuous monitoring system under 40 C.F.R. § 60.105(a)(4) exceeds 162 ppmv (0.10 gr/dscf).

Note: All averages shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

**SECTION D. Source Level Requirements****# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]****Subpart J - Standards of Performance for Petroleum Refineries
Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

VI. WORK PRACTICE REQUIREMENTS.**# 014 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Emissions of volatile organic compounds (VOCs) shall be minimized by annual combustion tuning and good operating and air pollution control practices.

015 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) The permittee shall ensure that this source has an annual tune-up on the combustion process. The annual tune-up shall include, but not be limited to, the following:

(1) Inspection, adjustment, cleaning or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.

(2) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NO_x, and, to the extent practicable, minimize the emissions of CO.

(3) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer.

(b) The annual combustion tune-up shall be made in accordance with EPA document "Combustion Efficiency Optimization Manual for Operators of Oil and Gas-fired Boilers," September 1983 (EPA-340/1-83-023) or equivalent procedures approved by the Department in writing.

VII. ADDITIONAL REQUIREMENTS.**# 016 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]****Subpart A - General Provisions****Address.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

40 C.F.R. § 60.4 requires the submittal of all reports, requests, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Section B of this permit.

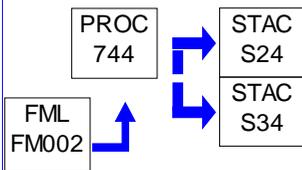
*** **Permit Shield in Effect.** ***

**SECTION D. Source Level Requirements**

Source ID: 744

Source Name: ACD 543 CRUDE HEATER

Source Capacity/Throughput: 514.000 MCF/HR Refinery Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

Particulate matter emissions into the outdoor atmosphere from this combustion unit shall not exceed the rate determined by the following formula:

$$A = 3.6E^{(-0.56)}$$

where

A = Allowable emissions in pounds per million BTUs of heat input, and

E = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 600.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

NOx emissions shall not exceed 0.2 lbs/MMBtu, on a 24-hour basis, when firing on refinery gas.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]**Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall not burn any fuel gas in this source that contains hydrogen sulfide (H₂S) in excess of 162 ppmv (0.10 gr/dscf), 3-hour average, rolling by 1-hour.

[Compliance with this limit assures compliance with 25 Pa. Code §123.22(e)(1)]

II. TESTING REQUIREMENTS.**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]****Subpart J - Standards of Performance for Petroleum Refineries****Test methods and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) Once every five (5) years, and in accordance with 40 C.F.R. 60.106(e), EPA Method 11 shall be used to determine the H₂S concentration in the fuel gas burned in this source.

(b) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40 C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and the Testing Requirements specified in Condition II, Section C of this permit.

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.****# 005 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall use a CEM to monitor the H₂S content of the refinery fuel gas, being burned in this source. This data shall be used to demonstrate compliance with the SO₂ limit for this source.

006 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

The permittee shall monitor the NO_x, CO, and oxygen from this source following the annual combustion tuning using a Department approved method.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall ensure that a Department approved Continuous Emission Monitor (CEM) is continuously monitoring and recording the concentration (dry basis) of Hydrogen Sulfide (H₂S) in refinery fuel gas before being burned in this source. This condition does not apply when the source is burning natural gas.

- a. The span value for this CEM is 425 mg/dscm H₂S.
- b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned.
- c. The performance evaluations for the H₂S monitor under 40 C.F.R. § 60.13(c) shall use Performance Specification 7. EPA Method 11 shall be used for conducting the relative accuracy evaluations.

IV. RECORDKEEPING REQUIREMENTS.**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain records of the following operating parameters for this source:

- (1) The fuel rate and type of fuel(s) consumed each day.
- (2) H₂S content of the fuel, when firing refinery fuel gas.
- (3) The BTU content of the fuel consumed.

(b) The permittee shall keep records of the PM, SO_x and NO_x emission calculations used to verify the corresponding emission limits for this source.

009 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The permittee shall keep the following records for the unit:

- a. The emissions of the pollutant(s) under Emissions Restriction for this unit in tons per month and 12-month rolling sum.
- b. The amount of fuel consumed each day the unit is operating.
- c. The H₂S content of the fuel consumed on a monthly, and 12-month rolling average, basis.
- d. The BTU content of the fuel consumed each day the unit is operating.
- e. Average firing rate (in MMBtu/hr) each month and each 12 consecutive month period.

010 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

**SECTION D. Source Level Requirements**

The permittee shall ensure that each adjustment conducted in the annual tune-up on the combustion process be recorded in a permanently bound book, or other Department approved method, and contain, at a minimum, the following information:

- (a) The date of the tuning procedure.
- (b) The name of the service company and technicians.
- (c) The final operating rate or load.
- (d) The final CO and NOx emission rates.
- (e) The final excess oxygen rate.

V. REPORTING REQUIREMENTS.**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]****Subpart J - Standards of Performance for Petroleum Refineries
Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For the purpose of reports under 40 C.F.R. § 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

All 3-hour average, rolling by 1-hour, during which the average concentration of H₂S as measured by the H₂S continuous monitoring system under 40 C.F.R. § 60.105(a)(4) exceeds 162 ppmv (0.10 gr/dscf).

Note: All averages shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]**Subpart J - Standards of Performance for Petroleum Refineries
Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

VI. WORK PRACTICE REQUIREMENTS.**# 013 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Emissions of volatile organic compounds (VOCs) shall be minimized by annual combustion tuning and good operating and air pollution control practices.

014 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

RACT for this heater shall be the operation and maintenance of twelve (12) low NOx burners.

015 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) The permittee shall ensure that this source has an annual tune-up on the combustion process. The annual tune-up shall include, but not be limited to, the following:

- (1) Inspection, adjustment, cleaning or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.
- (2) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NO_x, and, to the extent practicable, minimize the emissions of CO.
- (3) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration operation as specified by the manufacturer.

(b) The annual combustion tune-up shall be made in accordance with EPA document "Combustion Efficiency Optimization Manual for Operators of Oil and Gas-fired Boilers," September 1983 (EPA-340/1-83-023) or equivalent procedures approved

**SECTION D. Source Level Requirements**

by the Department in writing.

VII. ADDITIONAL REQUIREMENTS.

016 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]

Subpart A - General Provisions

Address.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

40 C.F.R. § 60.4 requires the submittal of all reports, requests, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Section B of this permit.

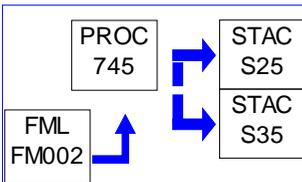
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 745

Source Name: ACD 544 CRUDE HEATER

Source Capacity/Throughput: 514.000 MCF/HR Refinery Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

Particulate matter emissions into the outdoor atmosphere from this combustion unit shall not exceed the rate determined by the following formula:

$$A = 3.6E^{(-0.56)}$$

where

A = Allowable emissions in pounds per million BTUs of heat input, and

E = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 600.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

NOx emissions shall not exceed 0.2 lb/MMBtu, on a 24-hour average basis, when firing refinery fuel gas.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]**Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall not burn any fuel gas in this source that contains hydrogen sulfide (H₂S) in excess of 162 ppmv (0.10 gr/dscf), 3-hour average, rolling by 1-hour.

[Compliance with this limit assures compliance with 25 Pa. Code §123.22(e)(1)]

II. TESTING REQUIREMENTS.**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]****Subpart J - Standards of Performance for Petroleum Refineries****Test methods and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) Once every five (5) years, and in accordance with 40 C.F.R. 60.106(e), EPA Method 11 shall be used to determine the H₂S concentration in the fuel gas burned in this source.

(b) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40 C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and the Testing Requirements specified in Condition II, Section C of this permit.

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.****# 005 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall monitor the NO_x, CO, and oxygen from this source following the annual combustion tuning using a Department approved method.

006 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

The Permittee shall use a CEM to monitor the H₂S content of the refinery fuel gas being burned in this source. This data shall be used to demonstrate compliance with the SO₂ emission limit for this source.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall ensure that a Department approved Continuous Emission Monitor (CEM) is continuously monitoring and recording the concentration (dry basis) of Hydrogen Sulfide (H₂S) in refinery fuel gas before being burned in this source. This condition does not apply when the source is burning natural gas.

- a. The span value for this CEM is 425 mg/dscm H₂S.
- b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned.
- c. The performance evaluations for the H₂S monitor under 40 C.F.R. § 60.13(c) shall use Performance Specification 7. EPA Method 11 shall be used for conducting the relative accuracy evaluations.

IV. RECORDKEEPING REQUIREMENTS.**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain records of the following operating parameters for this source:

- (1) The fuel rate and type of fuel(s) consumed each day.
- (2) H₂S content of the fuel, when firing refinery fuel gas.
- (3) The BTU content of the fuel consumed.

(b) The permittee shall keep records of the PM, SO_x and NO_x emission calculations used to verify the corresponding emission limits for this source.

009 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The permittee shall keep the following records for the unit:

- a. The emissions of the pollutant(s) under Emissions Restriction for this unit in tons per month and 12-month rolling sum.
- b. The amount of fuel consumed each day the unit is operating.
- c. The H₂S content of the fuel consumed on a monthly, and 12-month rolling average, basis.
- d. The BTU content of the fuel consumed each day the unit is operating.
- e. Average firing rate (in MMBtu/hr) each month and each 12 consecutive month period.

010 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

**SECTION D. Source Level Requirements**

Each adjustment conducted during the annual tune-up on for this source shall be recorded in a permanently bound log book, or other Department approved method, and contain, at a minimum, the following parameters:

- (a) The date of the tuning procedure.
- (b) The name of the service company and technicians.
- (c) The final operating rate or load.
- (d) The final CO and NOx emission rates.
- (e) The final excess oxygen rate.

V. REPORTING REQUIREMENTS.**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]****Subpart J - Standards of Performance for Petroleum Refineries
Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For the purpose of reports under 40 C.F.R. § 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

All 3-hour average, rolling by 1-hour, during which the average concentration of H₂S as measured by the H₂S continuous monitoring system under 40 C.F.R. § 60.105(a)(4) exceeds 162 ppmv (0.10 gr/dscf).

Note: All averages shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]**Subpart J - Standards of Performance for Petroleum Refineries
Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

VI. WORK PRACTICE REQUIREMENTS.**# 013 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Emissions of volatile organic compounds (VOCs) shall be minimized by annual combustion tuning and good operating and air pollution control practices.

014 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) The permittee shall perform an annual tune-up on the combustion process for this source. The annual tune-up shall include, but not be limited to, the following:

- (1) Inspection, adjustment, cleaning or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.
- (2) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NO_x, and, to the extent practicable, minimize the emissions of CO.
- (3) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer.

(b) The annual combustion tune-up shall be made in accordance with EPA document "Combustion Efficiency Optimization Manual for Operators of Oil and Gas-fired Boilers," September 1983 (EPA-340/1-83-023) or equivalent procedures approved by the Department in writing.

015 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

RACT for this heater shall be the operation and maintenance of twelve (12) low NO_x burners.

**SECTION D. Source Level Requirements****VII. ADDITIONAL REQUIREMENTS.**

016 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]

Subpart A - General Provisions

Address.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

40 C.F.R. § 60.4 requires the submittal of all reports, requests, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Section B of this permit.

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

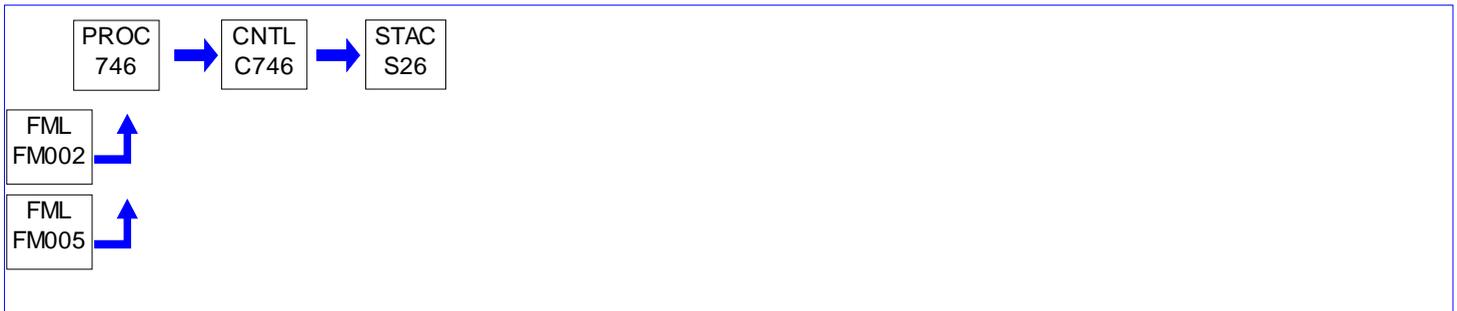
Source ID: 746

Source Name: VCD 544 VAC HEATER

Source Capacity/Throughput:

229.000 MCF/HR

Refinery Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.111]****Combustion units**

Particulate matter emissions into the outdoor atmosphere from this combustion unit shall not exceed the rate determined by the following formula:

$$A = 3.6E^{(-0.56)}$$

where

A = Allowable emissions in pounds per million BTUs of heat input, and

E = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 600.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

- Nitrogen Oxides (NO_x) emissions shall not exceed 0.06 lb/MMBtu and 42.05 tons per year calculated as a 12-month rolling sum.
- Carbon Monoxide (CO) emissions shall not exceed 84.1 tons per year calculated as a 12-month rolling sum.
- Volatile Organic Compounds (VOCs) emissions shall not exceed 5.5 tons per year calculated as a 12-month rolling sum.
- Particulate Matter (PM) emissions shall not exceed 9.1 tons per year calculated as a 12-month rolling sum.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]**Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall not burn any fuel gas in this source that contains hydrogen sulfide (H₂S) in excess of 162 ppmv (0.10 gr/dscf), 3-hour average, rolling by 1-hour.

[Compliance with this limit assures compliance with 25 Pa. Code §123.22(e)(1)]

Fuel Restriction(s).**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Only the refinery fuel gas and/or natural gas shall be combusted in the 544 Vacuum Heater.

**SECTION D. Source Level Requirements****Throughput Restriction(s).****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The heat input of 544 Vacuum Heater shall be limited to 160 MMBtu/hr, or less, calculated as a 365-day rolling average.

Control Device Efficiencies Restriction(s).**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall install, operate, and maintain next generation ultra-low NOx burners to control the emissions of NOx from the 544 Vacuum Heater. The next generation ultra-low NOx burners shall be installed, operated, and maintained in accordance with manufacturer's specifications as well as good air pollution control practices.

II. TESTING REQUIREMENTS.**# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

a. The permittee shall conduct a stack test to determine the nitrogen oxides (NOx), sulfur dioxide (SO₂), and carbon monoxide (CO) emissions from the source once per permit term, but no less frequent than once every five (5) years.

008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.106]**Subpart J - Standards of Performance for Petroleum Refineries****Test methods and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) Once every five (5) years, and in accordance with 40 C.F.R. 60.106(e), EPA Method 11 shall be used to determine the H₂S concentration in the fuel gas burned in this source.

(b) The permittee shall ensure that all testing is done in accordance with the provisions of 25 Pa. Code Chapter 139, 40 C.F.R. 60 Subparts A and J, and 40 C.F.R. 63, Subparts A and UUU, and the Testing Requirements specified in Condition II, Section C of this permit.

III. MONITORING REQUIREMENTS.**# 009 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall use a CEM to monitor the H₂S content of the refinery fuel gas being burned in this source. This data will be used to demonstrate compliance with the SO₂ emission limit for this source.

010 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

The permittee shall monitor the NOx, CO, and oxygen from this source following the annual combustion tuning, using a Department approved method.

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]**Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall ensure that a Department approved Continuous Emission Monitor (CEM) is continuously monitoring and recording the concentration (dry basis) of Hydrogen Sulfide (H₂S) in refinery fuel gas before being burned in this source. This condition does not apply when the source is burning natural gas.

a. The span value for this CEM is 425 mg/dscm H₂S.

b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned.

**SECTION D. Source Level Requirements**

c. The performance evaluations for the H₂S monitor under 40 C.F.R. § 60.13(c) shall use Performance Specification 7. EPA Method 11 shall be used for conducting the relative accuracy evaluations.

IV. RECORDKEEPING REQUIREMENTS.**# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain records of the following operating parameters for this source:

- (1) The fuel rate and type of fuel(s) consumed each day.
- (2) H₂S content of the fuel, when firing refinery fuel gas.
- (3) The BTU content of the fuel consumed.

(b) The permittee shall keep records of the PM, SO_x and NO_x emission calculations used to verify the corresponding emission limits for this source.

013 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The permittee shall keep the following records for the unit:

- a. The emissions of the pollutant(s) under Emissions Restriction for this unit in tons per month and 12-month rolling sum.
- b. The amount of fuel consumed each day the unit is operating.
- c. The H₂S content of the fuel consumed on a monthly, and 12-month rolling average, basis.
- d. The BTU content of the fuel consumed each day the unit is operating.
- e. Average firing rate (in MMBtu/hr) each month and each 12 consecutive month period.

014 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The permittee shall record in a permanently bound log book, or other Department approved method, each adjustment conducted in the annual tune-up on this source. The following information, at a minimum, shall be recorded:

- (a) The date of the tuning procedure.
- (b) The name of the service company and technicians.
- (c) The final operating rate or load.
- (d) The final CO and NO_x emission rates.
- (e) The final excess oxygen rate.

V. REPORTING REQUIREMENTS.**# 015 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.105]****Subpart J - Standards of Performance for Petroleum Refineries****Monitoring of emissions and operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

For the purpose of reports under 40 C.F.R. § 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

All 3-hour average, rolling by 1-hour, during which the average concentration of H₂S as measured by the H₂S continuous monitoring system under 40 C.F.R. § 60.105(a)(4) exceeds 162 ppmv (0.10 gr/dscf).

Note: All averages shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

**SECTION D. Source Level Requirements****# 016 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]****Subpart J - Standards of Performance for Petroleum Refineries
Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

VI. WORK PRACTICE REQUIREMENTS.**# 017 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Emissions of volatile organic compounds (VOCs) shall be minimized by annual combustion tuning and good operating and air pollution control practices.

018 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) The permittee shall ensure that an annual tune-up be performed on this source. The tune-up shall include, but not be limited to, the following:

- (1) Inspection, adjustment, cleaning or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.
- (2) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NO_x, and, to the extent practicable, minimize the emissions of CO.
- (3) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer.

(b) The annual combustion tune-up shall be made in accordance with EPA document "Combustion Efficiency Optimization Manual for Operators of Oil and Gas-fired Boilers," September 1983 (EPA-340/1-83-023) or equivalent procedures approved by the Department in writing.

VII. ADDITIONAL REQUIREMENTS.**# 019 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]****Subpart A - General Provisions
Address.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

40 C.F.R. § 60.4 requires the submittal of all reports, requests, applications, submittals, and other communications to both the EPA and the Department. The EPA copies shall be forwarded to the address specified in Section B of this permit.

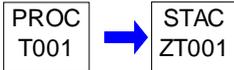
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: T001

Source Name: MACT GROUP 1, INT FLOAT ROOF TANKS

Source Capacity/Throughput: 1.000 BBL/HR

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Storage vessel provisions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

(a) The permittee may not store VOCs that have a vapor pressure of 11.1 psia or greater under actual storage conditions in any of the internal floating roof tanks contained this source.

(b) If the permittee elects to change any tanks in this group to MACT Group 2 status, such tanks shall comply with the provisions outlined for MACT Group 2 Tanks, Source T003, rather than the provisions outlined for this source.

II. TESTING REQUIREMENTS.**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Storage vessel provisions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

When the permittee and the Administrator do not agree on whether the annual average weight percent organic HAP in the stored liquid is above or below four (4) percent for a storage vessel, EPA Method 18 of 40 C.F.R. 60, Appendix A, shall be used.

III. MONITORING REQUIREMENTS.**# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Storage vessel provisions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

The permittee shall visually inspect the internal floating roof and the primary seal according to the following schedule:

(a) Visually inspect the internal floating roof and the seal through manholes and roof hatches on the fixed roof at least once every twelve (12) months; and

(b) Visually inspect the internal floating roof and the seal each time the storage vessel is emptied and degassed, and at least once every ten (10) years.

IV. RECORDKEEPING REQUIREMENTS.**# 004 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall record when the status of any of these individual tanks is changed from MACT, Group 1 status.

005 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

Throughput type, and amount, for each individual tank, shall be recorded on a monthly basis.

**SECTION D. Source Level Requirements****# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Storage vessel provisions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

(a) The permittee may use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP for purposes of group determination. Data, assumptions, and procedures used in the determination shall be documented.

(b) If defects found during the annual monitoring inspections of Condition #003(a) for this source, cannot be repaired within forty-five (45) days and if the vessel cannot be emptied within forty-five (45) calendar days, the permittee may utilize an extension of up to thirty (30) additional calendar days. Documentation of a decision to utilize the extension shall include: a description of the failure, document that alternate storage capacity is unavailable, and specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied, as soon as practical.

(c) The permittee shall maintain a list of tanks designated as Group 1 or Group 2 on site, and update this list as necessary.

[Compliance with this streamlined permit condition assures compliance with 25 Pa. Code § 129.56(h).]

V. REPORTING REQUIREMENTS.**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Storage vessel provisions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

(a) Except as provided in subcondition (b), of this condition, for all inspections required by the Condition #003(b), for this source, the permittee shall notify DEP in writing at least thirty (30) calendar days prior to the refilling of each storage vessel to afford DEP the opportunity to have an observer present.

(b) If the inspection required by Condition #003(b), for this source, is not planned and the permittee could not have known about the inspection thirty (30) days in advance of refilling the vessel, the permittee shall notify DEP at least seven (7) calendar days prior to the refilling of a storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternately, the notification including the written documentation may be made in writing and sent so that it is received by DEP at least seven (7) calendar days prior to refilling.

(c) DEP may waive the notification requirements of 40 C.F.R. §63.646 for all or some storage vessels subject to these requirements. DEP may also grant permission to refill storage vessels sooner than thirty (30) days after submitting the notifications specified in Condition (b), above, for all storage vessels or for individual storage vessels on a case-by-case basis.

(d) If a failure is detected during the annual monitoring inspections of Condition #003(a) for this source, the permittee shall report the following information in the Periodic Report:

- (1) Date of the inspection.
- (2) Identification of each storage vessel in which a failure was detected.
- (3) Description of the failure.
- (4) Describe the nature of and date the repair was made or the date the storage vessel was emptied.

Note: For Condition (d), above, a failure is defined as anytime in which the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or the seal is detached from the internal floating roof; or there are holes, tears, or other openings in the seal or seal fabric; or there are visible gaps between the seal and the wall of the storage vessel.

**SECTION D. Source Level Requirements**

(e) If a failure is detected during the monitoring inspection of Condition #003(b) for this source, the permittee shall report the following information in the Periodic Report:

- (1) Date of the inspection.
- (2) Identification of each storage vessel in which a failure was detected.
- (3) Description of the failure.
- (4) Describe the nature of and date the repair was made.

Note: For Condition (e), above, a failure is defined as any time in which the internal floating roof has defects; or the primary seal has holes, tears or other openings in the seal or the seal fabric.

(f) If an extension is utilized in accordance with Condition #008 for this source, the permittee shall, in the next Periodic Report, include the following:

- (1) Identify the storage tank.
- (2) Description of the failure.
- (3) Document that alternate storage capacity was not available.
- (4) Describe the nature of and date the repair was made.

(g) The permittee shall notify DEP semi-annually (in the periodic report) of any change to the group status of these tanks.

VI. WORK PRACTICE REQUIREMENTS.

008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]

Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries

Storage vessel provisions.

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

(a) The internal floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the following periods:

- (1) During the initial fill.
- (2) After the vessel has been completely emptied and degassed.
- (3) When the vessel is completely emptied before being subsequently refilled.

(b) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

Note: The intent of (a) and (b) above is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty,

(c) Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device shall consist of one of the following devices:

- (1) A liquid mounted seal.
- (2) A metallic shoe seal.
- (3) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous seals.

(d) Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the floor leg supports.

(e) If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or

**SECTION D. Source Level Requirements**

lid must be open for access.

(f) Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(g) If during the inspections required by the monitoring inspections of Condition #003(a), above, the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or there is liquid on the floating roof; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage vessel, the permittee shall repair the items or empty and remove the storage vessel from service within forty-five (45) calendar days. If a failure is detected that cannot be repaired within forty-five (45) calendar days and if the vessel cannot be emptied within forty-five(45) calendar days, the permittee may utilize an extension of up to thirty (30) additional calendar days.

(h) If during the inspections required by the monitoring inspections of Condition #003(b) for this source, the internal floating roof has defects or the primary seal has holes, tears, or other openings in the seal or the seal fabric, the permittee shall repair the items as necessary so that none of the conditions specified in this subcondition exist before refilling the storage vessel with organic HAP.

[Compliance with this streamlined permit condition assures compliance with 25 Pa. Code § 127.441.]

VII. ADDITIONAL REQUIREMENTS.**# 009 [25 Pa. Code §127.503]****Application information.**

As of the issuance date of this permit, this source consists of the following individual tanks, subject to MACT, Group 1, Internal Floating Roof Requirements:

- DEP Source number 134, capacity - 15 M barrels
- DEP Source number 137, capacity - 61 M barrels
- DEP Source number 140, capacity - 63 M barrels
- DEP Source number 150, capacity - 79 M barrels
- DEP Source number 153, capacity - 83 M barrels

***** Permit Shield in Effect. *****

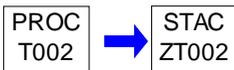
**SECTION D. Source Level Requirements**

Source ID: T002

Source Name: MACT GROUP 1, EXT FLOATING TANKS

Source Capacity/Throughput:

1.000 BBL/HR

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Storage vessel provisions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

(a) The permittee may not store VOCs that have a vapor pressure of 11.1 psia or greater under actual storage conditions in any of the external floating roof tanks comprising this source.

(b) The accumulated areas of gaps between the vessel wall and the primary seal, as determined by subcondition #003(c), shall not exceed 10 square inches per foot of vessel diameter, and the width of any portion of any gap shall not exceed 1.5 inches.

(c) The accumulated area of gaps between the vessel wall and the secondary seal, as determined by subcondition #003(d), below, shall not exceed 1.0 square inch per foot of vessel diameter and the width of any portion of any gap shall not exceed 0.5 inches. These seal gap requirements may be exceeded during the measurement of primary seal gaps as required by 40 C.F.R. §63.646.

(d) If the permittee elects to change any tank(s) in this source to MACT Group 2 status (Source T003), such tank(s) shall comply with the provisions outlined for MACT Group 2 tanks (Source T003), rather than the provisions of MACT Group 1 tanks presented in this source.

II. TESTING REQUIREMENTS.**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Storage vessel provisions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

When the permittee and the Administrator do not agree on whether the annual weight percent organic HAP in the stored liquid is above or below four (4) percent for a storage vessel, EPA Method 18, of 40 C.F.R. 60, Appendix A shall be used.

III. MONITORING REQUIREMENTS.**# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Storage vessel provisions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

(a) Except as provided in subcondition (e), below, the permittee shall determine the gap areas and maximum gap widths between the primary seal and the wall of the storage vessel, and the secondary seal and the wall of the storage vessel according to the following frequency:

(1) Measurements of gaps between the vessel wall and the primary seal shall be performed at least once every five (5) years.

**SECTION D. Source Level Requirements**

(2) Measurements of gaps between the vessel wall and the secondary seal shall be performed at least once per year.

(3) If any storage vessel ceases to store organic HAP for a period of one (1) year or more, or if the maximum true vapor pressure of the total organic HAPs in the stored liquid falls below the valued defining Group 1 storage vessels for a period of one (1) year or more, measurements of gaps between the vessel wall and the primary seal, and the gaps between the vessel wall and the secondary seal shall be performed within ninety (90) calendar days of the vessel being refilled with organic HAP.

(b) Except as provided in subcondition (e), below, the permittee shall determine gap widths and gap areas in the primary and secondary seals (seal gaps) individually by the procedures described in subconditions (b)(1) through (b)(3), below.

(1) Seal gaps, if any, shall be measured at one or more floating roof levels when the roof is not resting on the roof leg supports.

(2) Seal gaps, if any, shall be measured around the entire circumference of the vessel in each place where a one-eighth (1/8) inch diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the storage vessel. The circumferential distance of each such location shall also be measured.

(3) The total surface area of each gap described in subcondition (b)(2), above, shall be determined by using probes of various widths to measure accurately the actual distance from the vessel wall to the seal and multiplying each such width by its respective circumferential distance.

(c) The permittee shall add the gap surface area of each gap location for the primary seal and divide the sum by the nominal diameter of the vessel.

(d) The permittee shall add the gap surface area of each gap location for the secondary seal and divide the sum by the nominal diameter of the vessel.

(e) If the permittee determines that it is unsafe to perform the seal gap measurements required in subconditions (a) and (b), above, or to inspect the vessel to determine compliance with the subconditions #008(h) and (i) because the floating roof appears to be structurally unsound and poses an imminent or potential danger to inspecting personnel, the permittee shall comply with the requirements with either (e)(1) or (e)(2), below.

(1) The permittee shall measure the seal gaps or inspect the storage vessel no later than thirty (30) calendar days after the determination that the roof is unsafe, or

(2) The permittee shall empty and remove the storage vessel from service no later than forty-five (45) calendar days after determining that the roof is unsafe. If a failure is detected that cannot be repaired within forty-five (45) calendar days and if the vessel cannot be emptied within forty-five(45) calendar days, the permittee may utilize an extension of up to thirty (30) additional calendar days.

(f) The permittee shall visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

[Compliance with this streamlined permit condition assures compliance with 25 Pa. Code § 129.56(h).]

IV. RECORDKEEPING REQUIREMENTS.

004 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The permittee shall record when the status of any of these individual tanks is changed from MACT, Group 1 status.

005 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

Throughput type, and amount, for each individual tank, shall be recorded on a monthly basis.

**SECTION D. Source Level Requirements****# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Storage vessel provisions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

- (a) The permittee may use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP for purposes of group determination. Data, assumptions, and procedures used in the determination shall be documented.
- (b) If the permittee utilizes the extension specified in Condition #003(e)(2), or Condition #008(k), of this source, the permittee shall document the decision. Documentation of a decision to utilize the extension shall include: a description of the failure, document that alternate storage capacity is unavailable, and specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied, as soon as practical.
- (c) The permittee shall maintain a list of tanks designated as Group 1 or Group 2 on site, and shall update this list as necessary.

V. REPORTING REQUIREMENTS.**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Storage vessel provisions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

- (a) Except as provided in subcondition (b), below, for all the inspections required by Condition #003(f), the permittee shall notify the Administrator in writing at least thirty (30) calendar days prior to the refilling of each storage vessel with organic HAP to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.
- (b) If the inspection required by Condition #003(f), above, is not planned and the permittee could not have known about the inspection thirty (30) calendar days in advance of refilling the vessel with organic HAP, the permittee shall notify the Administrator at least seven (7) calendar days prior to refilling of a storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternately, the notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least seven (7) calendar days prior to refilling.
- (c) The Administrator can waive the notification requirements specified in this condition for all or some storage vessels subject to these requirements. The Department may also grant permission to refill storage vessels sooner than thirty (30) days after submitting the notifications specified in 40 C.F.R. §63.646 for all storage vessels or for individual storage vessels on a case-by-case basis.
- (d) The permittee shall notify the Administrator in writing thirty (30) calendar days in advance of any gap measurements required by Condition #003, above, to afford the Administrator the opportunity to have an observer present.
- (e) If seal gaps in exceedance of Condition #001(b) and (c), above, are found during the inspections required by Condition #003(a) or if the specification in Conditions #008(h) and (i) are not met, the permittee shall report the following information in the Periodic Report:
- (1) Date of the seal gap measurement.
 - (2) The raw data obtained in the seal gap measurement and the calculations described in Conditions #003(c) and (d).
 - (3) Description of the failure.
 - (4) Description of any seal condition specified in Conditions #008(h) and (i) that is not met.
 - (5) Description of the nature of and date the repair was made, or the date the storage vessel was emptied.
- (f) If a failure is detected during the inspection required by Condition #003(f) (i.e., internal inspection), the permittee shall report the following information in the Periodic Report:

**SECTION D. Source Level Requirements**

- (1) Date of the inspection.
- (2) Identification of each storage vessel in which a failure was detected.
- (3) Description of the failure.
- (4) Describe the nature of and date the repair was made .

Note: For subcondition (f), above, a failure is defined as any time in which the external floating roof has defects; or the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric.

(g) If an extension is utilized in accordance with Condition #008(i), below, the permittee shall, in the next Periodic Report include the following:

- (1) Identify the storage vessel.
- (2) Description of the failure.
- (3) Document that alternate storage capacity was not available.
- (4) Describe the nature of and date the repair was made.

(h) The Permittee will notify the Administrator semiannually (in the periodic report) of any change to the group status of these tanks.

VI. WORK PRACTICE REQUIREMENTS.

**# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Storage vessel provisions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

(a) The external floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the following periods:

- (1) During the initial fill.
- (2) After the vessel has been completely emptied and degassed.
- (3) When the vessel is completely emptied before being subsequently refilled.

(b) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

Note: The intent of subconditions (a) and (b), above, is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty.

(c) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device meets the following criteria:

- (1) Consist of two seals, one above the other.
- (2) The primary seal shall be either a metallic shoe seal or a liquid-mounted seal.

(d) Except during inspections required in Condition #003, both the primary and secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion.

(e) Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.

(f) If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or lid must be open for access.

SECTION D. Source Level Requirements

(g) Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(h) The primary seal shall also meet the following requirements:

(1) Where a metallic shoe seal is in use, one end of the metallic shoe shall extend into the stored liquid and the other end shall extend a minimum vertical distance of 24 inches above the stored liquid surface.

(2) There shall be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(i) The secondary seal shall also meet the following requirements:

(1) The secondary seal shall be installed above the primary seal so that it completely covers the space between the roof edge and the vessel wall except as provided by, Condition #003(d).

(2) There shall be no holes, tears, or other openings in the seal or seal fabric.

(j) If during the inspections required in Condition #003(f), the primary seal has holes, tears or other openings in the seal or the seal fabric; or the secondary seal has holes, tears or other openings, the permittee shall repair the items as necessary so that none of the conditions specified in this subcondition exist before refilling the storage vessel with organic HAP.

(k) The permittee shall repair any conditions that do not meet the requirements in Conditions #001(b) and (c) or subcondition (h) and (i), above, no later than forty-five (45) calendar days after identification, or shall empty and remove the storage vessel from service no later than forty-five (45) calendar days after identification. If a failure is detected that cannot be repaired within forty-five (45) calendar days and if the vessel cannot be emptied within forty-five (45) calendar days, the permittee may utilize an extension of up to thirty (30) additional calendar days.

[Compliance with this streamlined permit condition assures compliance with 25 Pa. Code § 129.56(h).]

VII. ADDITIONAL REQUIREMENTS.**# 009 [25 Pa. Code §127.503]****Application information.**

As of the issuance date of this permit, the following individual tanks comprise this source subject to MACT Group 1, External Floating Roof requirements:

- DEP Source number 123, capacity - 43 M barrels
- DEP Source number 124, capacity - 43 M barrels
- DEP Source number 136, capacity - 53 M barrels
- DEP Source number 141, capacity - 53 M barrels
- DEP Source number 143, capacity - 79 M barrels
- DEP Source number 144, capacity - 86 M barrels

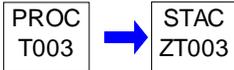
***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: T003

Source Name: MACT GROUP 2 TANKS

Source Capacity/Throughput: 1.000 BBL/HR

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Storage vessel provisions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

The permittee may not store volatile organic compounds that have a vapor pressure of 11.1 psia or greater under actual storage conditions in any of the tanks contained in this source.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.**# 002 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall keep records of

(a) The status change from MACT Group 2 of any tanks under Source ID T003;

(b) The throughput, type of liquid, and amount, for each individual tank on a monthly basis.

003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]**Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

(a) The permittee shall maintain records of the dimensions of the storage vessels and an analysis showing the capacity of the storage vessels for all tanks contained in this source.

(b) If a storage vessel is determined to be a MACT Group 2 tank because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

(c) The permittee shall maintain a list of tanks designated as MACT Group 1 or MACT Group 2 onsite, and update this list as necessary.

**SECTION D. Source Level Requirements****V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 004 [25 Pa. Code §129.57]****Storage tanks less than or equal to 40,000 gallons capacity containing VOCs**

The provisions of this section shall apply to above ground stationary storage tanks with a capacity equal to or greater than 2,000 gallons which contain volatile organic compounds with vapor pressure greater than 1.5 psia (10.5 kilopascals) under actual storage conditions. Storage tanks covered under this section shall have pressure relief valves which are maintained in good operating condition and which are set to release at no less than 0.7 psig (4.8 kilopascals) of pressure or 0.3 psig (2.1 kilopascals) of vacuum or the highest possible pressure and vacuum in accordance with state or local fire codes or the National Fire Prevention Association guidelines or other national consensus standards acceptable to the Department. Section 129.56(g) (relating to storage tanks greater than 40,000 gallons capacity containing volatile organic compounds) applies to this section. Petroleum liquid storage vessels which are used to store produced crude oil and condensate prior to lease custody transfer shall be exempt from the requirements of this section.

VII. ADDITIONAL REQUIREMENTS.**# 005 [25 Pa. Code §127.503]****Application information.**

As of the issuance date of this permit, this source consists of the following individual storage tanks that are subject to MACT Group 2 requirements:

- DEP Source number 138, capacity - 53 Mbarrels, external floating roof
- DEP Source number 142, capacity - 77 Mbarrels, external floating roof
- DEP Source number 151, capacity - 78 Mbarrels, external floating roof
- DEP Source number 154, capacity - 81 Mbarrels, external floating roof
- DEP Source number 194, capacity - 85 Mbarrels, internal floating roof
- DEP Source number 300, MISCELLANEOUS MACT GROUP 2 TANKS

If the permittee elects to change any tank(s) in this group to MACT Group 1 status, such tank(s) shall comply with the provisions outlined for MACT Group 1 tanks (Source T002 for external floating roof tanks) rather than the provisions of this source.

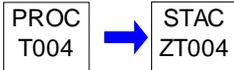
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: T004

Source Name: RACT-ONLY EXT FLOAT ROOF TANKS

Source Capacity/Throughput: 1.000 BBL/HR

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §129.56]****Storage tanks greater than 40,000 gallons capacity containing VOCs**

The permittee may not store VOCs that have a vapor pressure of 11 psia or greater under actual storage conditions in any of these external floating roof tanks in this source.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 002 [25 Pa. Code §129.56]****Storage tanks greater than 40,000 gallons capacity containing VOCs**

The permittee shall perform routine inspections annually, which shall include a visual inspection of the secondary seal, in compliance with Condition #007(a), for this source.

IV. RECORDKEEPING REQUIREMENTS.**# 003 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall record when the status of any of these individual tanks is changed from State-Only external floating roof status to either MACT Group 1 or MACT Group 2.

004 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

Throughput type, and amount, for each individual tank, shall be recorded on a monthly basis.

005 [25 Pa. Code §129.56]**Storage tanks greater than 40,000 gallons capacity containing VOCs**

The permittee shall maintain records of the types of volatile petroleum liquids stored, the maximum true vapor pressure of the liquid as stored, and the results of the routine annual inspections.

V. REPORTING REQUIREMENTS.**# 006 [25 Pa. Code §129.56]****Storage tanks greater than 40,000 gallons capacity containing VOCs**

If a failure detected during the routine annual inspections, required by Condition #002, for this source, cannot be repaired within forty-five (45) days and if the vessel cannot be emptied within forty-five (45) days, a thirty (30) day extension may be requested from the Department. A request for an extension shall document that alternate storage capacity is unavailable and specify a schedule of actions the permittee will take that will assure that the equipment will be repaired or the vessel will be emptied as soon as possible, but within the additional thirty (30) day time requested.

**SECTION D. Source Level Requirements****VI. WORK PRACTICE REQUIREMENTS.****# 007 [25 Pa. Code §129.56]****Storage tanks greater than 40,000 gallons capacity containing VOCs**

(a) An external floating roof shall be fitted with a primary seal and a continuous secondary seal extending from the floating roof to the tank wall. The external floating roof shall meet the specifications listed below:

(1) Seal closure devices shall meet the following requirements:

- (i) There are no visible holes, tears or other openings in the seals or seal fabric.
- (ii) The seals are intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall.

(2) Openings in the external floating roof, except for automatic bleeder vents, rim space vents and leg sleeves, are as follows:

- (i) Equipped with covers, seals or lids in the closed position except when the openings are in actual use.
- (ii) Equipped with projections into the tank which remain below the liquid surface at all times

(3) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports

(4) Rim vents are set to open when the roof is being floated off the leg supports or at the recommended setting of the manufacturer.

(5) Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least 90% of the area of the opening.

(b) For volatile organic compounds whose storage temperature is governed by ambient weather conditions, the vapor pressure under actual storage conditions shall be determined using a temperature which is representative of the average storage temperature of the hottest month of the year in which the storage takes place.

(c) If a failure is detected during the routine annual inspections, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. A 30-day extension may be requested from the Department if this cannot be accomplished.

VII. ADDITIONAL REQUIREMENTS.**# 008 [25 Pa. Code §127.503]****Application information.**

As of the issuance date of this permit, this source consists of the following individual external floating roof tanks subject to 25 Pa. Code 129.56:

- DEP Source number 126, capacity - 59 Mbarrels
- DEP Source number 127, capacity - 59 Mbarrels
- DEP Source number 145, capacity - 82 Mbarrels
- DEP Source number 146, capacity - 82 Mbarrels
- DEP Source number 147, capacity - 83 Mbarrels
- DEP Source number 148, capacity - 82 Mbarrels
- DEP Source number 149, capacity - 83 Mbarrels
- DEP Source number 155, capacity - 154 Mbarrels
- DEP Source number 156, capacity - 151 Mbarrels
- DEP Source number 157, capacity - 80 Mbarrels
- DEP Source number 160, capacity - 129 Mbarrels
- DEP Source number 161, capacity - 129 Mbarrels
- DEP Source number 163, capacity - 150 Mbarrels
- DEP Source number 164, capacity - 151 Mbarrels

*** Permit Shield in Effect. ***

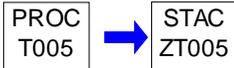
SECTION D. Source Level Requirements

Source ID: T005

Source Name: EXT FLOAT NSPS KB TANKS

Source Capacity/Throughput:

1.000 BBL/HR

**I. RESTRICTIONS.****Emission Restriction(s).**

**# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.112b]
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Standard for volatile organic compounds (VOC).**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

- (a) The permittee may not store volatile organic compounds that have a vapor pressure of 11.1 psia or greater under actual storage conditions in external floating roof tanks contained in this source.
- (b) The accumulated area of gaps between the vessel wall and the primary seal, as determined by Condition #002(c), below, shall not exceed 212 square centimeters per meter of tank diameter and the width of any portion of any gap shall not exceed 3.81 centimeters.
- (c) The accumulated area of gaps between the vessel wall and the secondary seal, as determined by Condition #002(c), below, shall not exceed 21.2 square centimeters per meter of vessel diameter and the width of any portion of any gap shall not exceed 1.27 centimeters. These seal gap requirements may be exceeded during the measurement of primary seal gaps as required in this section.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.116b]
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Monitoring of operations.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

- (a) The permittee shall determine the gap areas and maximum gap widths between the primary seal and the wall of the storage vessel, and the secondary seal and the wall of the storage vessel according to the following frequency:
- (1) Measurements of gaps between the vessel wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with volatile organic liquid (VOL) and at least once every 5 years.
- (2) Measurements of gaps between the vessel wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.
- (3) If any storage vessel ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of subconditions (a)(1) and (a)(2), above.
- (b) The permittee shall determine gap widths and gap areas in the primary and secondary seals (seal gaps) individually by the following procedures:

**SECTION D. Source Level Requirements**

(1) Seal gaps, if any, shall be measured at one or more floating roof levels when the roof is not resting on the roof leg supports.

(2) Seal gaps, if any, shall be measured around the entire circumference of the vessel in each place where an 1/8 inch diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the storage vessel. The circumferential distance of each such location shall also be measured.

(3) The total surface area of each gap described in subcondition (b)(2), above, shall be determined by using probes of various widths to measure accurately the actual distance from the vessel wall to the seal and multiplying each such width by its respective circumferential distance.

(c) The permittee shall add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum of each seal by the nominal diameter of the vessel.

(d) The permittee shall visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure for Condition #004(b)(5), for this source, as determined below.

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517, unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 0.51 psia.

IV. RECORDKEEPING REQUIREMENTS.

003 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

Throughput type, and amount, for each individual tank, shall be recorded on a monthly basis.

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.115b]

Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984 Reporting and recordkeeping requirements.

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

(a) The permittee shall keep a record of each gap measurement performed as required by Condition #002(a), above. Each record shall identify the storage vessel in which the measurement was performed and shall contain:

- (1) The date of measurement.
- (2) The raw data obtained in the measurement.
- (3) The calculations described in Conditions #002(b) and (c), above.

(b) The permittee shall keep records of the following for each storage vessel:.

**SECTION D. Source Level Requirements**

- (1) Dimension of the storage vessel .
- (2) Analysis showing the capacity of the storage vessel.
- (3) The VOL stored.
- (4) The period of storage.
- (5) The maximum true vapor pressure of that VOL during the respective storage period.

V. REPORTING REQUIREMENTS.

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.113b]
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Testing and procedures.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

(a) Except as provided in 40 C.F.R. §60.113(b), for all the inspections required by Condition #002(d), above, the permittee shall notify the Administrator in writing at least thirty (30) calendar days prior to the refilling of each storage vessel with organic HAP to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.

(b) If the inspection required by Condition #002(d), above, is not planned and the permittee could not have known about the inspection thirty (30) calendar days in advance of refilling the vessel with VOL, the permittee shall notify the Administrator at least seven (7) calendar days prior to refilling of a storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternately, the notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to refilling.

(c) After each seal gap measurement that detects gaps exceeding the limitations specified in Conditions #001(b) or (c), above, the permittee shall submit a report to DEP within thirty (30) days of inspection. The report will identify the vessel and contain the following information:

- (1) The date of measurement.
- (2) The raw data obtained in the measurement.
- (3) The calculations described in Conditions #002(b) and (c), above.
- (4) The date the vessel was emptied or the repairs made and date of repair.

(d) The permittee shall notify the Administrator in writing thirty (30) calendar days in advance of any gap measurements required in the monitoring requirements to afford the Administrator the opportunity to have an observer present.

(e) To utilize the extension specified in Condition #006(i), below, the permittee shall send a request to DEP which includes a demonstration of unavailability of alternate storage capacity and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

VI. WORK PRACTICE REQUIREMENTS.

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.112b]
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Standard for volatile organic compounds (VOC).**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.441.]

(a) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled.

(b) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

(c) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device meets the following criteria:

**SECTION D. Source Level Requirements**

(1) Consist of two seals, one above the other.

(2) The primary seal shall be either a metallic shoe seal or a liquid-mounted seal.

(d) Except during inspections required by Condition #002, for this source, both the primary and secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion.

(e) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(f) The primary seal shall also meet the following requirements:

(1) Where a metallic shoe seal is in use, one end of the metallic shoe shall extend into the stored liquid and the other end shall extend a minimum vertical distance of 61 centimeters above the stored liquid surface.

(2) There shall be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(g) The secondary seal shall also meet the following requirements:

(1) The secondary seal shall be installed above the primary seal so that it completely covers the space between the roof edge and the vessel wall except as provided by Condition #002(a).

(2) There shall be no holes, tears, or other openings in the seal or seal fabric

(h) If during the inspections required in Condition #002(d), above, the primary seal has holes, tears or other openings in the seal or the seal fabric; or the secondary seal has holes, tears or other openings, the permittee shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL.

(i) The permittee shall repair conditions that do not meet the requirements in Conditions #001(b) and (c), above, or subconditions (f) and (g) of this condition no later than forty-five (45) calendar days after identification, or shall empty and remove the storage vessel from service no later than forty-five (45) calendar days after identification. If a failure is detected that cannot be repaired within forty-five (45) calendar days and if the vessel cannot be emptied within forty-five (45) calendar days, a thirty (30) day extension may be requested from the Administrator.

VII. ADDITIONAL REQUIREMENTS.**# 007 [25 Pa. Code §127.503]****Application information.**

As of the issuance date of this permit, the following external floating roof tanks, subject to NSPS, Subpart Kb regulations, comprise this source:

- DEP Source number 125, capacity - 43 M barrels
- DEP Source number 152, capacity - 71 M barrels
- DEP Source number 162, capacity - 26 M barrels
- DEP Source number 165, capacity - 244 M barrels
- DEP Source number 166, capacity - 243 M barrels

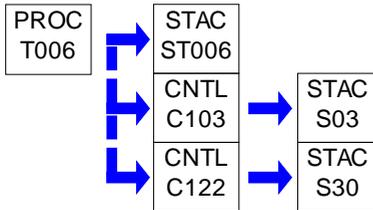
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**SECTION D. Source Level Requirements**

Source ID: T006

Source Name: MACT GR 1, TANKS ROUTED TO CLOSED VENT SYS

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.119]**

Subpart G--National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater

Storage vessel provisions--reference control technology.

The closed loop vent system shall be operated to reduce inlet emissions of total organic HAPs by 95% or greater.

002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]

Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries

Storage vessel provisions.

The emissions from these vessels shall be routed to Source ID 103 (Main Flare), except during:

- (a) Periods of planned routine maintenance of the Main Flare, not to exceed 240 hours per year.
- (b) A Main Flare malfunction.
- (c) Emissions from pressure relief valves used to relieve excess pressure in the tank to prevent tank rupture in the event of emergency conditions. The permittee shall report the date, quantity, composition, duration of emissions and corrective action taken to the department in accordance with the provisions of Condition C, #014.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.148]**

Subpart G--National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater

Leak inspection provisions.

The permittee shall perform annual inspections for visible, audible, or olfactory indication of leaks. The inspections shall be performed in accordance with Method 21, of 40 C.F.R. part 60, appendix A.

IV. RECORDKEEPING REQUIREMENTS.**# 004 [25 Pa. Code §127.441]**

Operating permit terms and conditions.

(a) Throughput type, and amount, for each individual tank shall be recorded on a monthly basis.

(b) The permittee shall maintain a list of tanks designated as MACT Group 1 or MACT Group 2 onsite, and update this list as necessary.

005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.123]

Subpart G--National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater

Storage vessel provisions--recordkeeping.

**SECTION D. Source Level Requirements**

- (a) The permittee shall maintain records of the dimensions of the storage vessels and an analysis showing the capacity of the storage vessels for all tanks contained in this source.
- (b) The permittee shall keep readily accessible records of the following:
- (1) the measured values of the parameters monitored in accordance with 40 C.F.R. §63.120(d)(5); and
 - (2) the planned routine maintenance performed on the control device, including durations of each time the control device does not meet the percent reduction requirements due to the planned routine maintenance. Such a record shall include the information specified in 40 C.F.R. §63.123(f)(2) and (3).

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.148]
Subpart G--National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater Leak inspection provisions.**

The permittee shall record the following information:

- (a) Identification of all parts of the vapor collection system that are designated as:
- (1) unsafe to inspect with an explanation why and the plan for inspecting the equipment;
 - (2) difficult to inspect with an explanation why and the plan for inspecting the equipment.
- (b) Bypass lines:
- (1) hourly records of the flow indicator, whether it was operating, if a diversion was detected anytime during the hour, as well as all periods of time when the indicator is not operating, or the vent stream bypasses the closed vent; or
 - (2) monthly inspection records of the seals or closure mechanisms, the occurrence when the seal or closure mechanism is broken, the bypass valve position has changed, of the key for the lock-and-key type configuration has been checked out.
- (c) Detected leaks:
- (1) the instrument identification, operator name or initials, and identification of the equipment;
 - (2) the date that the leak was detected, and the date of the first attempted repair;
 - (3) maximum instrument reading measured after the leak is successfully repaired or determined to be nonreparable;
 - (4) "repair delayed" and the reason for the delay if the leak is not repaired within fifteen (15) calendar days after discovery;
 - (5) name, initials, or other identification of the person whose decision it was that a repair could not be effected without a shutdown;
 - (6) the expected date of successful repair of the leak if the leak is not repaired within fifteen (15) calendar days;
 - (7) Dates of shutdowns that occur while the equipment is unrepaired.
- (d) No detection of leaks during inspections a record that the inspection was performed, the date of inspection, and a statement that no leaks were detected.

**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.646]
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Storage vessel provisions.**

- (a) The permittee shall keep a record of the planned routine maintenance performed on the Main Flare including the duration of each time the Main Flare does not meet the control device requirements specified in Source ID 103. Such a record shall include the date and time of the start and end of the planned routine maintenance.

**SECTION D. Source Level Requirements**

(b) The permittee shall document and record the data, assumptions, and procedures used to determine the stored liquid weight percent total organic HAP for the purposes of group determinations.

V. REPORTING REQUIREMENTS.**# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.148]**

Subpart G--National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater Leak inspection provisions.

Reports are required to be submitted to the EPA, and the Department, if:

- (a) the vent stream is diverted from the control device through the bypass line; and
- (b) the seal mechanism is broken, the bypass line valve position has changed, or the key to unlock the bypass line valve was checked out.

009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.654]

Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Heat exchange systems.

- (a) The permittee shall include in the Periodic Report a description of the planned routine maintenance that is anticipated to be performed on the Main Flare during the next six (6) months. This description shall include the type of maintenance necessary, planned frequency of the maintenance, and the lengths of the maintenance periods.
- (b) The permittee shall include in the Periodic Report a description of the planned routine maintenance that was performed on the Main Flare during the previous six (6) months. This description shall include the type of maintenance performed and the total number of hours during those six (6) months that the Main Flare did not meet the control requirements due to planned routine maintenance.
- (c) After a vessel has been emptied and degassed, the permittee shall notify the EPA and the Department at least thirty (30) days prior to refilling a vessel with organic HAPs.
- (d) The permittee shall submit the following as part of the periodic report:
 - (1) a description of the planned routine maintenance that would require the flare to not meet the 95% reduction requirement;
 - (2) a description of the anticipated planned routine maintenance for the flare in the next six (6) month period. The description shall include the type of maintenance, its planned frequency, and the lengths of maintenance periods; and
 - (3) The report shall describe each occurrence and the reasons that the flare does not meet the general requirements of 40 C.F.R. §63.11(b).

VI. WORK PRACTICE REQUIREMENTS.**# 010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.148]**

Subpart G--National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater Leak inspection provisions.

- (a) For bypass lines that could divert a vent stream away from the closed-vent system, the permittee shall:
 - (1) secure the bypass line valve in the closed position with a car-seal or a lock and key type of configuration. A visual inspection shall be performed at least once per month to ensure that the valve is maintained in the closed supposition and the vent stream is not diverted through the bypass; or
 - (2) calibrate, maintain, and operate a flow indicator that determines whether vent stream flow is present at least once every fifteen (15) minutes. The flow indicator shall be installed at the entrance to any bypass line and records shall be generated

**SECTION D. Source Level Requirements**

as specified in 40 C.F.R. §63.118(a)(3).

NOTE: Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to condition (a).

(b) The following are exempt from the inspection requirements for this source:

(1) any part of the closed vent system that is designated in 40 C.F.R. §63.148(i)(1) as unsafe to inspect because inspecting personnel would be exposed to imminent or potential danger as a consequence and that the permittee has a written plan requiring inspection of the equipment as frequently as practicable during safe-to-inspect times;

(2) any part of the closed vent system that is designated in 40 C.F.R. §63.148(i)(1) as difficult to inspect because the permittee determined that the equipment cannot be inspected without elevating the inspecting personnel more than two (2) meters above a support surface and that the permittee has a written plan that requires inspection of the equipment at least once every five (5) years.

(c) Instrument leaks are defined as readings of 500 ppm above background. A first attempt at repair shall be made no later than five (5) calendar days after the leak is detected.

(d) Leaks as indicated by an instrument reading greater than 500 ppm above background, or by visual inspections, shall be repaired as soon as practicable, except when the repair is technically infeasible without a shutdown of the source or if the permittee determines that the emissions resulting from the immediate repair would be greater than the fugitive emissions likely to result from the delay of the repair. Repair of such equipment shall be complete by the end of the next shutdown.

(1) A first attempt at repair shall be made no later than five (5) calendar days after the leak is detected.

(2) Repair shall be completed no later than fifteen (15) calendar days.

VII. ADDITIONAL REQUIREMENTS.

011 [25 Pa. Code §127.503]

Application information.

As of the issuance date of this permit, this source consists of the following individual sources:

- DEP Source number 501, capacity - 1.26MM gallons, controlled by Main Flare, Source ID 103
- DEP Source number 502, capacity - 1.26MM gallons, controlled by Main Flare, Source ID 103
- DEP Source number 513, capacity - 1.26MM gallons, vented to a Lowline Unit that collects gases for the fuel gas system.

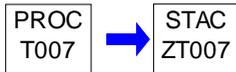
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: T007

Source Name: INTERNAL FLOAT NSPS KB TANKS

Source Capacity/Throughput: 1.000 BBL/HR

**I. RESTRICTIONS.****Emission Restriction(s).**

**# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.112b]
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Standard for volatile organic compounds (VOC).**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee may not store volatile organic compounds that have a vapor pressure of 11.1 psia or greater under actual storage conditions in this source.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.113b]
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Testing and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

- (a) The permittee shall visually inspect the internal floating roof and the primary seal prior to filling the storage tank with VOL.
- (b) The permittee shall visually inspect the internal floating roof and the primary seal through the manholes and roof hatches on the fixed roof at least once every twelve (12) months after the initial fill.
- (c) The permittee shall visually inspect the internal floating roof, the primary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed, and at least every ten (10) years.

IV. RECORDKEEPING REQUIREMENTS.

**# 003 [25 Pa. Code §127.511]
Monitoring and related recordkeeping and reporting requirements.**

Throughput type, and amount, for each individual tank, shall be recorded on a monthly basis.

**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.115b]
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The permittee shall keep a record of each inspection performed as required by Condition #002, for this source, which shall include:

- (a) Identification of the storage tank.

SECTION D. Source Level Requirements

- (b) The date of the inspection.
- (c) The observed condition of each component inspected.

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.116b]
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Monitoring of operations.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

- (a) The permittee shall keep records of the following for each storage vessel:
 - (1) The dimensions of the storage vessel,
 - (2) The capacity of the storage vessel,
 - (3) The VOL stored,
 - (4) The period of storage for which the VOL was stored in the vessel,
 - (5) The maximum true vapor pressure of that VOL during the respective storage period.
- (b) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below:
 - (1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service,
 - (2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:
 - (i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517, unless the Administrator specifically requests that the liquid be samples, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
 - (ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded of the estimated maximum true vapor pressure is greater than 0.51 psia.

V. REPORTING REQUIREMENTS.

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.113b]
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Testing and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

- (a) Except as provided in subcondition (b), below, for inspections required by Condition #002(a) and (c), for this source, the permittee shall notify the Administrator in writing at least thirty (30) calendar days prior to the filling or refilling of the tank with VOL to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.
- (b) If the inspection is not planned and the permittee could not have known about the inspection thirty (30) days in advance of refilling the vessel with VOL, the permittee shall notify the Administrator at least seven (7) calendar days prior to refilling of a storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least seven (7) calendar days prior to refilling.

**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.113b]
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Testing and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

**SECTION D. Source Level Requirements**

(a) After each visual inspection that detects defects, the permittee shall submit a report to the Administrator within thirty (30) days of the inspection. The report shall contain the following information:

- (1) The identity of the storage vessel inspected.
- (2) The nature of the defects.
- (3) The date the tank was emptied or the nature of and date the repair was made.

(b) If defects found during the inspection cannot be repaired within forty-five (45) days and if the tank cannot be emptied within forty-five (45) days, a thirty (30) day extension may be requested from the Administrator in the inspection report required by subcondition (a), above. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the permittee will take that will assure that the control equipment will be repaired or the tank will be emptied as soon as possible.

VI. WORK PRACTICE REQUIREMENTS.

**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.112b]
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Standard for volatile organic compounds (VOC).**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

- (a) Except for automatic bleeder vents and rim space vents, each opening in a noncontact internal floating roof shall provide a projection below the liquid surface.
- (b) Except for automatic bleeder vents, rim space vents, leg sleeves, column wells, ladder wells, sampling wells, and stub drains, each opening in the roof is to be equipped with a gasketed cover or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
- (c) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
- (d) Rim vents shall be equipped with a gasket and are to be set to open only when the roof is being floated off the roof leg supports, or at the manufacturer's recommended setting.
- (e) Each penetration of the internal floating roof that allows for the column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
- (f) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least ninety (90) percent of the opening.
- (g) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.112b]
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Standard for volatile organic compounds (VOC).**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

The internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the floating roof edge. The closure device shall consist of a single mechanical shoe seal.

**# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.112b]
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Standard for volatile organic compounds (VOC).**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

- (a) The internal floating roof shall rest or float on the liquid surface, (but not necessarily in complete contact with it) inside the tank at all times, except during those intervals when the tank is completely emptied or subsequently emptied and refilled.
- (b) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and

SECTION D. Source Level Requirements

shall be accomplished as rapidly as possible.

**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.113b]
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Testing and procedures.**

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.441.]

(a) If during the inspection required by Condition #002(a), for this source, the primary seal has holes, tears or other openings in the seal fabric, or there are defects in the internal floating roof, the permittee shall repair the items as necessary so that none of the conditions specified in this condition exist before filling the storage vessel with VOL.

(b) If during the inspection required by Condition #002(b), for this source, the internal floating roof is not resting on the surface of the VOL inside the tank, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the permittee shall repair the items or empty and remove the tank from service within forty-five (45) days. If a failure cannot be repaired within forty-five (45) days and if the vessel cannot be emptied within forty-five (45) days, a thirty (30) day extension may be requested in accordance with the requirements specified in Condition #007(b) for this source.

(c) If during the inspection required by Condition #002(c), of this source, the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than ten (10) percent open area, the permittee shall repair the items as necessary so that none of the conditions specified in this subcondition exist before refilling the tank with VOL.

VII. ADDITIONAL REQUIREMENTS.

012 [25 Pa. Code §127.503]

Application information.

As of the issuance date of this permit, the following individual internal floating roof storage tanks, subject to 40 C.F.R. 60, Subpart Kb, are included in this source:

- DEP Source number 190, capacity - 15 M barrels
- DEP Source number 139, capacity - 105 M barrels

***** Permit Shield in Effect. *****



SECTION E. Alternative Operation Requirements.

No Alternative Operations exist for this Title V facility.

**SECTION F. Emission Restriction Summary.**

Source Id	Source Description		
034	BOILER 9		
Emission Limit			Pollutant
10.000	PPMV		Ammonia
6.850	Lbs/Hr		CO
30.000	Tons/Yr		CO
2.700	Lbs/Hr		NOX
11.800	Tons/Yr		NOX
3.130	Lbs/Hr		PM10
13.700	Tons/Yr		PM10
3.130	Lbs/Hr		PM2.5
13.700	Tons/Yr		PM2.5
3.430	Lbs/Hr		SOX
15.000	Tons/Yr		SOX
0.460	Lbs/Hr		VOC
1.650	Tons/Yr	fugitive emissions	VOC
2.000	Tons/Yr		VOC
035	BOILER 10		
Emission Limit			Pollutant
10.000	PPMV		Ammonia
6.850	Lbs/Hr		CO
30.000	Tons/Yr		CO
2.700	Lbs/Hr		NOX
11.800	Tons/Yr		NOX
3.130	Lbs/Hr		PM10
13.700	Tons/Yr		PM10
3.130	Lbs/Hr		PM2.5
13.700	Tons/Yr		PM2.5
3.430	Lbs/Hr		SOX
15.000	Tons/Yr		SOX
0.460	Lbs/Hr		VOC
1.650	Tons/Yr	fugitive emissions	VOC
2.000	Tons/Yr		VOC
101	FCC UNIT		
Emission Limit			Pollutant
434.100	Tons/Yr	12-month rolling sum	CO
500.000	PPMV	dry at 0% O2, 1-hr average	CO
1.000	Lbs/MMBTU	Full burn	NOX
121.100	PPMV	dry at 0% O2, 365-day rolling average	NOX
155.300	PPMV	dry at 0% O2, 7-day rolling average	NOX
500.000	PPMV	at 0% O2, 3-hour rolling average	NOX
654.500	Tons/Yr	12-month rolling sum	NOX
25.000	PPMV	dry at 0% O2, 365-day rolling average	SOX
50.000	PPMV	dry at 0% O2, 7-day rolling average	SOX
165.800	Tons/Yr	12-month rolling sum	SOX

**SECTION F. Emission Restriction Summary.**

Source Id	Source Description		
93.300	Tons/Yr	12-month rolling sum	TSP
8.100	Tons/Yr	12-month rolling sum	VOC
102	CLAUS SULFUR RECOV. PLT.		
Emission Limit		Pollutant	
250.000	PPMV	at 0% excess air	SOX
0.040	gr/DRY FT3	Particulate Matter	TSP
103	MAIN FLARE		
Emission Limit		Pollutant	
1.300	Tons/Day		NOX
69.000	Tons/Yr		NOX
0.500	Tons/Day		SOX
25.000	Tons/Yr		SOX
113	LPG RECOVERY UNIT		
Emission Limit		Pollutant	
4.600	Tons/Yr		VOC
119	PLATFORMER REGENERATOR		
Emission Limit		Pollutant	
0.370	Tons/Yr		Hydrochloric Acid
138	#153 EXT.FLOAT 53M BBLS		
Emission Limit		Pollutant	
0.700	Tons/Yr		VOC
139	#154A INT. FLOAT 105M BBLS		
Emission Limit		Pollutant	
4.000	Tons/Yr		VOC
166	#94 EXT.FLOAT 243M BBL		
Emission Limit		Pollutant	
6.500	Tons/Yr		VOC
194	#160 INT. FLOAT 85 M BBLS		
Emission Limit		Pollutant	
0.300	Tons/Yr		VOC
733	FCCU FEED HEATER		
Emission Limit		Pollutant	
33.100	Tons/Yr		CO
12.480	Tons/Yr		NOX

**SECTION F. Emission Restriction Summary.**

Source Id	Source Description		
	3.000 Tons/Yr		PM10
	2.200 Tons/Yr		VOC
735	KEROSENE/HCN HTU HEATER		
Emission Limit			Pollutant
12.090 Tons/Yr			CO
14.320 Tons/Yr			NOX
736	DIESEL HTU HEATER		
Emission Limit			Pollutant
14.200 Tons/Yr	12-month rolling sum		CO
24.360 Tons/Yr	12-month rolling sum		NOX
1.500 Tons/Yr	12-month rolling sum		PM10
3.400 Tons/Yr	12-month rolling sum		VOC
737	NAPHTHA HDS HEATER		
Emission Limit			Pollutant
0.200 Lbs/MMBTU	refinery fuel gas		NOX
738	PLATFORMER FEED HEATER		
Emission Limit			Pollutant
48.000 PPMV	12-month rolling average		Hydrogen Sulfide
0.120 Lbs/MMBTU			NOX
317.000 Tons/Yr			NOX
0.100 Lbs/MMBTU			PM10
0.011 Lbs/MMBTU	12-month rolling average		SOX
739	ISOCRACKER 1ST STAGE HEATER.		
Emission Limit			Pollutant
0.200 Lbs/MMBTU	refinery fuel gas		NOX
30.660 Tons/Yr	refinery fuel gas		NOX
0.011 Lbs/MMBTU	refinery fuel gas		SOX
740	ISOCRACKER SPLITTER RBLR		
Emission Limit			Pollutant
0.450 Lbs/MMBTU	refinery fuel gas		NOX
741	D2/VGO HYDROTREATER FEED HEATER		
Emission Limit			Pollutant
0.320 Lbs/MMBTU	refinery fuel gas		NOX

**SECTION F. Emission Restriction Summary.**

Source Id	Source Description		
743	VCD 542 VAC HEATER		
Emission Limit			Pollutant
4.000	Lbs/Hr		CO
13.800	Tons/Yr		CO
10.800	Lbs/Hr		NOX
31.300	Tons/Yr		NOX
1.780	Lbs/Hr		SOX
7.800	Tons/Yr		SOX
1.000	Lbs/Hr	Particulate Matter	TSP
3.100	Tons/Yr	Particulate Matter	TSP
0.180	Lbs/Hr		VOC
0.790	Tons/Yr		VOC
744	ACD 543 CRUDE HEATER		
Emission Limit			Pollutant
0.200	Lbs/Hr	Refinery gas	NOX
745	ACD 544 CRUDE HEATER		
Emission Limit			Pollutant
0.200	Lbs/MMBTU		NOX
746	VCD 544 VAC HEATER		
Emission Limit			Pollutant
84.100	Tons/Yr		CO
0.060	Lbs/MMBTU		NOX
42.050	Tons/Yr		NOX
0.040	gr/DRY FT3		TSP
9.100	Tons/Yr		TSP
5.500	Tons/Yr		VOC

Site Emission Restriction Summary

Emission Limit	Pollutant
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**SECTION G. Miscellaneous.**

The emission limitations contained in Section F of this permit are: incomplete, provided for informational purposes only, and are not enforceable emission limitations. The actual emission limitations are provided in Sections C or D of this permit.

The following operating permits and plan approval serves as a basis for the conditions in this permit:

OP-23-0003,
23-312-213-GP,
PA-23-0041,
NOx Allowance permit.

The Department has determined that the emissions from the following activities or sources, excluding those indicated as site level requirements, in Section C, of this permit, do not require additional limitations, monitoring, recordkeeping, or testing requirements. However, emissions from these sources, if used for regulated substances and produce air emissions, need to be reported pursuant to 25 Pa. Code Chapter 135 and the relevant sections of the Annual Emissions Statement instructions:

- Chemical vendor tanks
- Firewater pump
- Maintenance activities
- Cold cleaning maintenance degreasers
- Gasoline vehicle refueling
- Sand Blasting
- Touchup/repair/maintenance painting
- QA/QC laboratories
- Blind Changing
- Miscellaneous storage tanks (103, 5, 54, 55, 56, 60, 61, 64, 65, 77, 79, 99, 100, 101, 102, 105, 106, 107, 108, 173, 176, 177, 183, 322, 325, 326, 332, 333, 334, 335, 443, 444, 445, 446, 447, and 448)
- Lube oil tanks (LUBE, 331, 13V30, 44T1, 81TK2, 81TK5, and T511)
- Empty tanks (109, 104, 116)
- Non-VOC containing tanks (101A, 116A, 111A, 112A, 113A, 114A, 26, 27, 27A, 115, 115A, 312, 313, 34T1, PR568, 88, 13T4, 81TK3, 81TK4, 82TK3, 82TK4, 90T1311, 90T1317A, 90T1317B, 90T1400, 90T403, NA6565, PV2504, PV2506, PV3565, 306A, 306B, 307, 308, 1314, 90T8, 90T9, 90T11, 90T12, 90T13, 90T70, 90T83, 90T84, 90T1314, 87, 72V1, 72V2, 90T1304, 90T303, 90T800, B911099, B921024, B930429, B951580, B951609, B910874, B951565, B951579, C142906, C142907, C151378, C151379, C151380, C151381, C151382, C151547)
- Platform Re-heater
- Barge loading (No. 2 fuel oil, No. 6 fuel oil, and kerosene)
- UPS Generator

March 2003. Auth ID: 495399, APS: 345212. Administrative amendment to address a Change of Ownership from Tosco Corporation - Trainer Refinery, Tax ID - 95-1865716-1, to ConocoPhillips - Trainer Refinery, Tax ID - 73-0400345-1.
Auth ID - 495399, APS - 345212

February 2005. Auth ID - 500964, APS - 345212. The permit was amended to address the appeal of the Title V Operating Permit. EHB Docket No. 2003-074-K.

January 2006. APS : 599218, AUTH ID: 599218. The Department issued this permit modification is to incorporate consent decree (Civil Action H-05-258) requirements, new applicable requirements (40 C.F.R. 63, Subparts UUU and DDDDD) and correct typographical errors.

August 2006. APS: 558223, AUTH: 639295. The Department amended this permit for cause to include the milestones from the voluntary disclosure for this facility and the incorporation of the milestones (in Section C, of this permit) from 40 C.F.R. 60, Subpart QQQ.

**SECTION G. Miscellaneous.**

October 2006. APS: 345212, AUTH: 650280. The Department amended this permit to incorporate Consent Decree Requirements into this Federally enforceable permit (Consent Decree No. H-05-0258).

August 2007. APS: 343212, Auth 683028. Amendment to incorporate three plan approvals:

- 23-0003F for the Continuous Catalyst Reforming Unit modification
- 23-0003G for the Platformer Heater Revamp project, and
- 23-0003H for the Isocracker Expansion Project.

August 29, 2007, APS: 345212; AUTH: 698075. TVOP renewal.

March 26, 2008, APS: 345212; AUTH ID: 720264. Minor Operating Permit Modification to include consent decree requirements for source IDs 120 and 122.

AUTH ID 745811 includes the following changes:

July 14, 2008, AUTH: 737603; Minor modification to Source ID:739

September 9, 2008, AUTH: 745811; Amendment to incorporate 23-0003J into TVOP

December 30, 2008, AUTH: 759221; Minor modification to Source ID: 031 and 032

February 12, 2009, Appeal - TVOP 23-00003 (EHB Docket No. 2009-008-MG)

December 11, 2009, Amendment to incorporate 23-0003K and 23-0003N into TVOP

July 2010. APS: 345212, Auth: 840413. Amendment to incorporate plan approval, number 23-0003I into the Title V permit. Affected Sources are two boilers, source numbers 034 and 035.

October 8, 2010, APS ID: 345212; AUTH ID: 856142. Modify FCCU NOx emission limits based on CO&A (H-05-0258).

October 13, 2011, APS ID: 345212; AUTH ID: 899011. Administrative Amendment to incorporate Plan Approval No. 23-0003M requirements.

April 15, 2012, AUTH ID: 926895, Administrative amendment for change of ownership from ConocoPhillips Company (EIN: 73-0400345) to Phillips 66 Company (EIN: 37-1652702).

June 22, 2012, APS ID: 786636; AUTH ID: 935887, Administrative amendment for change of ownership from Phillips 66 Company (EIN: 37-1652702) to Monroe Energy, LLC (EIN: 45-5201144).

May 21, 2013, AUTH ID 977672: Administrative amendment to incorporate Plan Approval No. 23-0003P conditions into Title V Operating Permit.

June 28, 2013, AUTH ID 984000: OP minor modification for Peabody Heater (Source ID 130) allowed under RFD # 3561 (exempt from PA requirements on April 4, 2013).

June 18, 2013, AUTH ID 983210: OP renewal.

Issued under AUTH ID 983210:

Boiler MACT application No. 23-0003Q (APS ID 786653, AUTH ID 935910)

Minor OP modification for Source ID 736 (AUTH ID 996326).

June 23, 2014, AUTH ID 1031147: to incorporate Plan Approval Nos. 23-0003W and 23-0003X into TVOP 23-00003.

March 30, 2015, AUTH ID 1067457: OP minor modification to permit conditions for Source ID 194.



***** End of Report *****
